

Koll 1: A1-Kollaboration

PATRICK ACHENBACH¹, RALPH BÖHM¹, DAMIR BOSNAR², ACHIM DENIG¹, MICHAEL O. DISTLER¹, ANSELM ESSER¹, HÉLÈNE FONVIEILLE³, IVICA FRİŞĆIĆ¹, MATTHIAS HEILIG¹, PHILIPP HERRMANN¹, MATTHIAS HOEK¹, SIMON KEGEL¹, YVONNE KOHL¹, HARALD MERKEL¹, MIHA MIHOVILOVIC¹, JULIAN MÜLLER¹, ULRICH MÜLLER¹, JOSEF POCHODZALLA¹, BJÖRN SÖREN SCHLIMME¹, MATTHIAS SCHOTH¹, FLORIAN SCHULZ¹, CONCETTINA SFIENTI¹, SIMON ŠIRCA⁴, SAMO STAJNER¹, MICHAELA THIEL¹, ADRIAN WEBER¹, SABATO STEFANO CAIAZZA¹ und LOUP CORREA¹ — ¹Institut für Kernphysik, Johannes Gutenberg-Universität Mainz, Germany — ²Department of Physics, University of Zagreb, Croatia — ³LPC, Université Blaise Pascal, IN2P3-CNRS Aubiere, France — ⁴Institut "Jožef Stefan" and University of Ljubljana, Ljubljana, Slovenia

Koll 2: A2-Kollaboration

PATRICK ACHENBACH¹, PATRIK ADLARSON¹, FARAH AFZAL¹⁹, JÜRGEN AHRENS¹, CHANDRASEKHAR AKONDI¹⁸, JOHN ANNAND⁴, HANS-JÜRGEN AREND¹, WILLIAM BARNES²⁴, REINHARD BECK¹⁹, ARON BERNSTEIN²⁶, MAIK BIROTH¹, NIKOLAI BORISOV¹⁷, ALESSANDRO BRAGHERI³, DEREK BRANFORD⁶, WILLIAM BRISCOE⁷, CRISTINA COLLICOTT²¹, SUSANNA COSTANZA³, ACHIM DENIG¹, MANUEL DIETERLE⁵, EVANGELINE DOWNIE^{1,4,7}, PETER DREXLER¹⁰, MARIA ISABEL FERRETTI BONDY¹, LEV FILKOV², ALEXANDER FIX²³, KLAUS FÖHL⁶, SIMON GARDNER⁴, STEFANIE GARNI⁵, SERGO BORISOVICH GERASIMOV¹⁷, DEREK GLAZIER⁶, DOMINIKA GLOWA⁶, PETER GRABMAYR⁹, WOLFGANG GRADL¹, RALF GREGOR¹¹, GRIGORY GUREVICH¹³, PAULINE HALL BARRIENTOS⁶, DAVID HAMILTON⁴, KURT HANSEN²², MARTIN HATTEMER¹, THORSTEN HEHL⁹, DAVID HORNIDGE¹², GARTH HUBER²⁰, LENNART ISAKSSON²², PETER JENNEWEIN¹, TOM JUDE⁶, VIKTOR KASHEVAROV², STEPHEN KAY⁶, IRAKLI KESHELASHVILI⁵, RUDOLF KONDRAVIC¹³, MILORAD KOROLJA¹⁴, BERND KRUSCHE⁵, MICHAEL LANG¹⁹, JAMES LINTURI¹, VALERY LISIN¹³, KEN LIVINGSTON⁴, DOUGLAS MACGREGOR⁴, MARK MANLEY¹⁹, PHILIPPE MARTEL²⁶, WERNER MEYER¹⁵, RORY MISKIMEN²⁴, ANDREAS NEISER¹, ALEXANDER NEGANOV¹⁷, RAINER NOVOTNY¹⁰, MARKUS OBERLE⁵, MICHAEL OSTRICK¹, PATRIK OTT¹, PETER-BERND OTTE¹, PAOLO PEDRONI³, ANDREI POLONSKI¹³, VALERY POLYANSKY², SERGEI PRAKHOB⁸, GERHARD REICHERZ¹⁵, GÜNTHER ROSNER^{4,25}, TIGRAN ROSTOMYAN⁵, ADAM SARTY²¹, BENT SCHRÖDER²², CONCETTINA SFIENTI¹, DAN SOBER¹⁶, VAHE SOKHOYAN⁷, KARSTEN SPIEKER¹⁹, OLIVER STEFFEN¹, IGOR STRAKOVSKY⁷, THOMAS STRUB⁵, IVAN SUPEK¹⁴, ANNICKA THIEL¹⁹, MICHAELA THIEL¹, LOTHAR TIATOR¹, ANDREAS THOMAS¹, MARC UNVERZAGT^{1,19}, YURI USOV¹⁷, DAN WATTS⁶, LILIAN WITTHAUER⁵, DOMINIK WERTHMÜLLER⁵, MARTIN WOLFES¹ und LORENZO ZANA⁶ — ¹Institut für Kernphysik, Universität Mainz, Mainz, Germany — ²Lebedev Physical Institute, Leninsky Prospekt 53, Moscow, Russia — ³INFN Sezione di Pavia, Via Bassi, Pavia, Italy — ⁴Department of Physics and Astronomy, Glasgow University, Glasgow, United Kingdom — ⁵Institut für Physik, Universität Basel, Basel, Switzerland — ⁶Department of Physics, University of Edinburgh, Edinburgh, United Kingdom — ⁷George Washington University, Washington DC, U.S.A. — ⁸University of California (UCLA), Los Angeles CA, U.S.A. — ⁹Physikalisches Institut, Universität Tübingen, Auf der Morgenstelle, Tübingen, Germany — ¹⁰II. Physikalisches Institut, Universität Giesen, Heinrich-Buff-Ring, Gießen, Germany — ¹¹Forschungszentrum Jülich, Jülich, Germany — ¹²Department of Physics, Mount Allison University, Sackville, Canada — ¹³Institute for Nuclear Research (INR), Moscow, Russia — ¹⁴Rudjer Boskovic Institute, Zagreb, Croatia — ¹⁵Institut für Experimentalphysik, Ruhr-Universität, Bochum, Germany — ¹⁶Catholic University, Washington DC, U.S.A. — ¹⁷Joint Institute for Nuclear Research (JINR), Dubna, Russia — ¹⁸Kent State University, Kent, OH, USA — ¹⁹Helmholtz-Institut für Strahlen- und Kernphysik, Universität Bonn, Bonn, Germany — ²⁰Dept. of Physics, Univ. of Regina, Regina, Canada — ²¹Dept. of Astronomy and Physics, Saint Mary's University, Halifax, Canada — ²²MAX-lab, Lund University, Lund, Sweden — ²³Tomsk Polytechnic University, Tomsk, Russia — ²⁴Department of Physics, University of Massachusetts, Amherst, USA — ²⁵GSI FAIR, Darmstadt, Germany — ²⁶Massachusetts Institute of Technology, Department of Physics, Cambridge, MA, USA

Koll 3: AGATA-Kollaboration

BENEDIKT BIRKENBACH¹, JÜRGEN EBERTH¹, HERBERT HESS¹, ROUVEN HIRSCH¹, JAN JOLIE¹, PETER REITER¹, DAVID SCHNEIDERS¹, TIM STEINBACH¹, ANDREAS VOGT¹, NIGEL WARR¹, ANDREAS ZILGES¹, LARS LEWANDOWSKI¹, REINER KRÜCKEN², ROMAN GERNHÄUSER², MICHEAL SCHLARB², JÜRGEN GERL³, TOBI-

AS ENGERT³, TOBIAS HABERMANN³, GILLES DE FRANCE³, IVAN KOJOUHAROV³, NIKOLAUS KURZ³, STEPHANE PIETRI³, HENNING SCHAFFNER³, LILIANA CORTES⁴, PLAMEN BOUTACHKOV⁴, GIULIA GUASTALLA⁴, ANGEL GIVECHEV⁴, CORINNE LOUCHART-HENNING⁴, EDANA MERCHAN⁴, OLIVER MÖLLER⁴, NORBERT PIETRALLA⁴, DAMIAN RALET⁴, MICHAEL REESE⁴, PUSHPENDRA SINGH⁴, CHRISTIAN STAHL⁴, ANDI BOSTON⁵, HELEN BOSTON⁵, SAMANTHA COLOSIMO⁵, FAY FILMER⁵, DAN JUDSON⁵, STEVEN MOON⁵, MIKE SLEE⁵, PAUL NOLAN⁵, JOHAN NYBERG⁶, AILA GENGBACH⁶, BO CEDERWALL⁷, CARLOS ROSSI⁸, DINO BAZZACCO⁸, MARCO BELLATO⁸, DAMIANO BORTOLATO⁸, ENRICO FARNEA⁸, ANDRES GADEA⁸, ROBERTO ISOCRATE⁸, RALUCA MARGINEAN⁸, ROBERTO MENEGAZZO⁸, GABRIELE RAMPAZZO⁸, FRANCESCO RECCHIA⁸, CALIN UR⁸, ROBERTO VENTURELLI⁸, ALBERTO PULLIA⁹, FRANCESCA ZOCCA⁹, SYLVAIN BROUSSARD¹⁰, BART BRUYNEEL¹⁰, ANDREAS GOERGEN¹⁰, WOLFRAM KORTEN¹⁰, ALEXANDRE OBERTELLI¹⁰, JULIEN PANCI¹⁰, CHRISTOPHE THEISEN¹⁰, CHRISTIAN VEYSSIERE⁹, ANDRE BOUTY¹⁰, ANGE LOTODE¹⁰, YANNICK MARIETTE¹⁰, DOMINIQUE CURIEN¹¹, OLIVIER DORVAUX¹¹, GILBERT DUCHENE¹¹, BEONUIT GALL¹¹, PATRICE MEDINA¹¹, CAYETANO SANTOS¹¹, ELMHDI CHAMBIT¹¹, LAURENT CHARLES¹¹, REMY BAUMANN¹¹, FRANCOIS DIDIERJEAN¹¹, MARIE-HELENE SIGWARD¹¹, ALEXANDER BUERGER¹², MARC LABICHE¹³, IAN LAZARUS¹³, ROY LEMON¹³, BELEN GOMEZ¹³, JOHN SIMPSON¹³, PIERRE DESEQUELLES¹⁴, PIERRE EDELBRUCK¹⁴, XAVIER GRAVE¹⁴, KARL HAUSCHILD¹⁴, AMEL KORICHI¹⁴, JOA LJUNGVAL¹⁴, ARACELI LOPEZ-MARTENS¹⁴, HOA HA MAI¹⁴, CHRISTOPHE OZIOL¹⁴, LOUNIS BENALLEGUE¹⁵, SEBASTIEN LHENORTET¹⁵, STEPHANE LEBOUTELLIER¹⁵, DENIS LINGET¹⁵, BRUNO TRAVERS¹⁵, DANIEL GUINET¹⁶, NADIN REDON¹⁶, OLIVIER STEZOWSKI¹⁶, TUYNEN DOAN QUANG¹⁶, SERKAN AKKOYUM¹⁷, AYSE ATAC¹⁷, AYSE KASKAS¹⁷, JEAN ROPERT¹⁸ und MICHEL TRIPON¹⁸ — ¹IKP, Universitat zu Koln, Germany — ²TU Munchen, Germany — ³G.S.I. Darmstadt, Germany — ⁴IKP, TU Darmstadt, Germany — ⁵University of Liverpool, England — ⁶R.I.T. University Uppsala, Sweden — ⁷University of Stockholm, Sweden — ⁸INFN Padua, Italy — ⁹University of Milano, Italy — ¹⁰Irfu Saclay, France — ¹¹IPHC Strasbourg, France — ¹²ISKP Universitat Bonn, Germany — ¹³CCLRC Daresbury, England — ¹⁴IPN Orsay, France — ¹⁵CSNSM Orsay, France — ¹⁶IPN Lyon, France — ¹⁷Ankara University, Turkey — ¹⁸JYFL Jyvaskyl, Finland

Koll 4: ALICE-Kollaboration

J. ADAM⁴⁰, D. ADAMOVÁ⁸⁴, M.M. AGGARWAL⁸⁸, G. AGLIERI RINELLA³⁶, M. AGNELLO¹¹⁰, N. AGRAWAL⁴⁸, Z. AHAMMED¹³², S. AHMAD¹⁹, S.U. AHN⁶⁸, S. AIOLA¹³⁶, A. AKINDINOV⁵⁸, S.N. ALAM¹³², D. ALEKSANDROV⁸⁰, B. ALESSANDRO¹¹⁰, D. ALEXANDRE¹⁰¹, R. ALFARO MOLINA⁶⁴, A. ALICI^{12,104}, A. ALKIN³, J.R.M. ALMARAZ¹¹⁹, J. ALME³⁸, T. ALT⁴³, S. ALTINPINAR¹⁸, I. ALTSYBEEV¹³¹, C. ALVES GARCIA PRADO¹²⁰, C. ANDREI⁷⁸, A. ANDRONIC⁹⁷, V. ANGUELOV⁹⁴, T. ANTIČIĆ⁹⁸, F. ANTINORI¹⁰⁷, P. ANTONIOLI¹⁰⁴, L. APHECETCHE¹¹³, H. APPELSHÄUSER⁵³, S. ARCELLI²⁸, R. ARNALDI¹¹⁰, O.W. ARNOLD^{37,93}, I.C. ARSENE²², M. ARSLANDOK⁵³, B. AUDURIER¹¹³, A. AUGUSTINUS³⁶, R. AVERBECK⁹⁷, M.D. AZMI¹⁹, A. BADALÀ¹⁰⁶, Y.W. BAEK⁶⁷, S. BAGNASCO¹¹⁰, R. BAILHACHE⁵³, R. BALA⁹¹, S. BALASUBRAMANIAN¹³⁶, A. BALDISSERI¹⁵, R.C. BARAL⁶¹, A.M. BARBANO²⁷, R. BARBERA²⁹, F. BARILE³³, G.G. BARNAFÖLDI¹³⁵, L.S. BARNBY¹⁰¹, V. BARRET⁷⁰, P. BARTALINI⁷, K. BARTH³⁶, J. BARTKE¹¹⁷, E. BARTSCH⁵³, M. BASILE²⁸, N. BASTID⁷⁰, S. BASU¹³², B. BATHEN⁵⁴, G. BATIGNE¹¹³, A. BATISTA CAMEJO⁷⁰, B. BATYUNYA⁶⁶, P.C. BATZING²², I.G. BEARDEN⁸¹, H. BECK⁵³, C. BEDDA¹¹⁰, N.K. BEHERA⁵⁰, I. BELIKOV⁵⁵, F. BELLINI²⁸, H. BELLO MARTINEZ², R. BELLWIED¹²², R. BELMONT¹³⁴, E. BELMONT-MORENO⁶⁴, V. BELYAEV⁷⁵, P. BENACEK⁸⁴, G. BENCEDI¹³⁵, S. BEOLE²⁷, I. BERCEANU⁷⁸, A. BERCUCI⁷⁸, Y. BERDNIKOV⁸⁶, D. BERENYI¹³⁵, R.A. BERTENS⁵⁷, D. BERZANO³⁶, L. BETEV³⁶, A. BHASIN⁹¹, I.R. BHAT⁹¹, A.K. BHATI⁸⁸, B. BHATTACHARJEE⁴⁵, J. BHOM¹²⁸, L. BIANCHI¹²², N. BIANCHI⁷², C. BIANCHI^{134,57}, J. BIELCÍK⁴⁰, J. BIELCÍKOVÁ⁸⁴, A. BILANDZIC^{81,37,93}, G. BIRO¹³⁵, R. BISWAS⁴, S. BISWAS⁷⁹, S. BJELOGRLIC⁵⁷, J.T. BLAIR¹¹⁸, D. BLAU⁸⁰, C. BLUME⁵³, F. BOCK^{74,94}, A. BOGDANOV⁷⁵, H. BØGGILD⁸¹, L. BOLDIZSÁR¹³⁵, M. BOMBARA⁴¹, J. BOOK⁵³, H. BOREL¹⁵, A. BORISSOV⁹⁶, M. BORRI^{83,124}, F. BOSSU⁶⁵, E. BOTTA²⁷, C. BOURJAU⁸¹, P. BRAUN-MUNZINGER⁹⁷, M. BREGANT¹²⁰, T. BREITNER⁵², T.A. BROKER⁵³, T.A. BROWNING⁹⁵, M. BROZ⁴⁰, E.J. BRUCKEN⁴⁶, E. BRUNA¹¹⁰, G.E. BRUNO³³, D. BUDNIKOV⁹⁹, H. BUESCHING⁵³, S. BUFALINO^{36,27}, P. BUNCIC³⁶, O. BUSCH^{94,128}, Z. BUTHELEZI⁶⁵, J.B. BUTT¹⁶, J.T. BUXTON²⁰, D. CAFFARRI³⁶, X. CAI⁷, H.

- CAINES¹³⁶, L. CALERO DIAZ⁷², A. CALIVA⁵⁷, E. CALVO VILLAR¹⁰², P. CAMERINI²⁶, F. CARENA³⁶, W. CARENA³⁶, F. CARNESECCHI²⁸, J. CASTILLO CASTELLANOS¹⁵, A.J. CASTRO¹²⁵, E.A.R. CASULA²⁵, C. CEBALLOS SANCHEZ⁹, P. CERELLO¹¹⁰, J. CERKALA¹¹⁵, B. CHANG¹²³, S. CHAPELAND³⁶, M. CHARTIER¹²⁴, J.L. CHARVET¹⁵, S. CHATTOPADHYAY¹³², S. CHATTOPADHYAY¹⁰⁰, A. CHAUVIN^{93,37}, V. CHELNOKOV³, M. CHERNEY⁸⁷, C. CHESHKOV¹³⁰, B. CHEYNIS¹³⁰, V. CHIBANTE BARROSO³⁶, D.D. CHINELLATO¹²¹, S. CHO⁵⁰, P. CHOCHULA³⁶, K. CHOI⁹⁶, M. CHOJACKI⁸¹, S. CHOUDHURY¹³², P. CHRISTAKOGLOU⁸², C.H. CHRISTENSEN⁸¹, P. CHRISTIANSEN³⁴, T. CHUJO¹²⁸, S.U. CHUNG⁹⁶, C. CICALO¹⁰⁵, L. CIFARELLI^{12,28}, F. CINDOLO¹⁰⁴, J. CLEYMANS⁹⁰, F. COLAMARIA³³, D. COLELLA^{59,36}, A. COLLU^{74,25}, M. COLOCCI²⁸, G. CONESA BALBASTRE⁷¹, Z. CONESA DEL VALLE⁵¹, M.E. CONNORS^{140,136}, J.G. CONTRERAS⁴⁰, T.M. CORMIER⁸⁵, Y. CORRALES MORALES¹¹⁰, I. CORTÉS MALDONADO², P. CORTESE³², M.R. COSENTINO¹²⁰, F. COSTA³⁶, P. CROCHET⁷⁰, R. CRUZ ALBINO¹¹, E. CUAUTLE⁶³, L. CUNQUEIRO^{54,36}, T. DAHMS^{93,37}, A. DAINES¹⁰⁷, M.C. DANISCH⁹⁴, A. DANU⁶², D. DAS¹⁰⁰, I. DAS^{100,51}, S. DAS⁴, A. DASH^{121,79}, S. DASH⁴⁸, S. DE¹²⁰, A. DE CARO^{12,31}, G. DE CATALDO¹⁰³, C. DE CONTI¹²⁰, J. DE CUEVELAND⁴³, A. DE FALCO²⁵, D. DE GRUTTOLA^{12,31}, N. DE MARCO¹¹⁰, S. DE PASQUALE³¹, A. DEISTING^{97,94}, A. DELOFF⁷⁷, E. DÉNES^{139,135}, C. DEPLANO⁸², P. DHANKHER⁴⁸, D. DI BARI³³, A. DI MAURO³⁶, P. DI NEZZA⁷², M.A. DIAZ CORCHERO¹⁰, T. DIETEL⁹⁰, P. DILLENSEGER⁵³, R. DIVIA³⁶, Ø. DJUVSLAND¹⁸, A. DOBRIN⁸², D. DOMENICIS GIMENEZ¹²⁰, B. DÖNIGUS⁵³, O. DORDIC²², T. DROZHZHAVA⁵³, A.K. DUBEY¹³², A. DUBLA⁵⁷, L. DUCROUX¹³⁰, P. DUPIEUX⁷⁰, R.J. EHRLERS¹³⁶, D. ELIA¹⁰³, E. ENDRESS¹⁰², H. ENGEL⁵², E. EPPLE¹³⁶, B. ERAZMUS¹¹³, I. ERDEMIR⁵³, F. ERHARDT¹²⁹, B. ESPAGNON⁵¹, M. ESTIENNE¹¹³, S. ESMU¹²⁸, J. EU⁹⁶, D. EVANS¹⁰¹, S. EVDOKIMOV¹¹¹, G. EYYUBOVA⁴⁰, L. FABBETTI^{93,37}, D. FABRIS¹⁰⁷, J. FAIVRE⁷¹, A. FANTONI⁷², M. FASEL⁷⁴, L. FELDKAMP⁵⁴, A. FELICIELLO¹¹⁰, G. FEOFILOV¹³¹, J. FERENCE⁸⁴, A. FERNÁNDEZ TÉLLEZ², E.G. FERREIRO¹⁷, A. FERRETTI²⁷, A. FESTANTI³⁰, V.J.G. FEUILLARD^{15,70}, J. FIGIEL¹¹⁷, M.A.S. FIGUEREDO^{124,120}, S. FILCHAGIN⁹⁹, D. FINOGEEV⁵⁶, F.M. FIONDA²⁵, E.M. FIORE³³, M.G. FLECK⁹⁴, M. FLORIS³⁶, S. FOERTSCH⁶⁵, P. FOKA⁹⁷, S. FOKIN⁸⁰, E. FRAGIACOMO¹⁰⁹, A. FRANCESCON^{36,30}, U. FRANKENFELD⁹⁷, G.G. FRONZE²⁷, U. FUCHS³⁶, C. FURGET⁷¹, A. FURS⁵⁶, M. FUSCO GIRARD³¹, J.J. GAARDHØJE⁸¹, M. GAGLIARDI²⁷, A.M. GAGO¹⁰², M. GALLIO²⁷, D.R. GANGADHARAN⁷⁴, P. GANOTI⁸⁹, C. GAO⁷, C. GARABATOS⁹⁷, E. GARCIA-SOLIS¹³, C. GARGIULO³⁶, P. GASIK^{93,37}, E.F. GAUGER¹¹⁸, M. GERMAIN¹¹³, A. GHEATA³⁶, M. GHEATA^{36,62}, P. GHOSH¹³², S.K. GHOSH⁴, P. GIANOTTI⁷², P. GIUBELLINO^{110,36}, P. GIUBILATO³⁰, E. GLADYSZ-DZIADUS¹¹⁷, P. GLÄSSEL⁹⁴, D.M. GOMÉZ CORAL⁶⁴, A. GOMEZ RAMIREZ⁵², V. GONZALEZ¹⁰, P. GONZÁLEZ-ZAMORA¹⁰, S. GORBUNOV⁴³, L. GÖRLICH¹¹⁷, S. GOTOVAC¹¹⁶, V. GRABSKI⁶⁴, O.A. GRACHOV¹³⁶, L.K. GRACZYKOWSKI¹³³, K.L. GRAHAM¹⁰¹, A. GRELLI⁵⁷, A. GRIGORAS³⁶, C. GRIGORAS³⁶, V. GRIGOREV⁷⁵, A. GRIGORYAN¹, S. GRIGORYAN⁶⁶, B. GRINYOV³, N. GRION¹⁰⁹, J.M. GRONEFELD⁹⁷, J.F. GROSSE-OETRINGHAUS³⁶, J.-Y. GROSSIORD¹³⁰, R. GROSSO⁹⁷, F. GUBER⁵⁶, R. GUERNANE⁷¹, B. GUERZONI²⁸, K. GULBRANDSEN⁸¹, T. GUNJI¹²⁷, A. GUPTA⁹¹, R. GUPTA⁹¹, R. HAAKE⁵⁴, Ø. HAALAND¹⁸, C. HADJIDAKIS⁵¹, M. HAIDUC⁶², H. HAMAGAKI¹²⁷, G. HAMAR¹³⁵, J.C. HAMON⁵⁵, J.W. HARRIS¹³⁶, A. HARTON¹³, D. HATZIFOTIADOU¹⁰⁴, S. HAYASHI¹²⁷, S.T. HECKEL⁵³, M. HECKER⁵³, E. HELLBÄR⁵³, H. HELSTRUP³⁸, A. HERGHELEGIU⁷⁸, G. HERRERA CORRAL¹¹, D. HERZIG⁵³, B.A. HESS³⁵, K.F. HETLAND³⁸, H. HILLEMANNS³⁶, B. HIPPOLYTE⁵⁵, D. HORAK⁴⁰, S. HORNUNG⁹⁴, R. HOSOKAWA¹²⁸, P. HRISTOV³⁶, M. HUANG¹⁸, P. HUHN⁵³, T.J. HUMANIC²⁰, N. HUSSAIN⁴⁵, T. HUSSAIN¹⁹, D. HUTTER⁴³, D.S. HWANG²¹, R. ILKAEV⁹⁹, M. INABA¹²⁸, E. INCANI²⁵, M. IPPOLITO^{75,80}, M. IRFAN¹⁹, M. IVANOV⁹⁷, V. IVANOV⁸⁶, V. IZUCHEEV¹¹¹, N. JACAZIO²⁸, P.M. JACOBS⁷⁴, M.B. JADHAV⁴⁸, S. JADLOVSKA¹¹⁵, J. JADLOVSKY^{115,59}, C. JAHNKE¹²⁰, M.J. JAKUBOWSKA¹³³, H.J. JANG⁶⁸, M.A. JANIK¹³³, P.H.S.Y. JAYARATHNA¹²², C. JENA³⁰, S. JENA¹²², R.T. JIMENEZ BUSTAMANTE⁹⁷, P.G. JONES¹⁰¹, J. JUNG⁵³, M. JUNG⁵³, A. JUSKO¹⁰¹, P. KALINAK⁵⁹, A. KALWEIT³⁶, J. KAMIN⁵³, J.H. KANG¹³⁷, V. KAPLIN⁷⁵, S. KAR¹³², A. KARASU UYSAL⁶⁹, O. KARAVICHEV⁵⁶, T. KARAVICHEVA⁵⁶, L. KARAYAN^{97,94}, E. KARPECHEV⁵⁶, U. KEBSCHULL⁵², R. KEIDEL¹³⁸, D.L.D. KEJDENER⁵⁷, M. KEIL³⁶, M. MOHSIN KHAN^{141,19}, P. KHAN¹⁰⁰, S.A. KHAN¹³², A. KHANZADEEV⁸⁶, Y. KHARLOV¹¹¹, B. KILENG³⁸, D.W. KIM⁴⁴, D.J. KIM¹²³, D. KIM¹³⁷, H. KIM¹³⁷, J.S. KIM⁴⁴, M. KIM¹³⁷, S. KIM²¹, T. KIM¹³⁷, S. KIRSCH⁴³, I. KISEL⁴³, S. KISELEV⁵⁸, A. KISIEL¹³³, G. KISS¹³⁵, J.L. KLAY⁶, C. KLEIN⁵³, J. KLEIN³⁶, C. KLEIN-BÖSING⁵⁴, S. KLEWIN⁹⁴, A. KLUGE³⁶, M.L. KNICHEL⁹⁴, A.G. KNOSPE¹¹⁸, C. KOBDAJ¹¹⁴, M. KOFARAGO³⁶, T. KOLLEGGER⁹⁷, A. KOLOJVARI¹³¹, V. KONDRATIEV¹³¹, N. KONDRATYEVA⁷⁵, E. KONDRATYUK¹¹¹, A. KONEVSKIKH⁵⁶, M. KOPCIK¹¹⁵, P. KOSTARAKIS⁸⁹, M. KOUR⁹¹, C. KOUZINOPoulos³⁶, O. KOVALENKO⁷⁷, V. KOVALENKO¹³¹, M. KOWALSKI¹¹⁷, G. KOYITHATTA MEETHALEVEEDU⁴⁸, I. KRÁLIK⁵⁹, A. KRAVČÁKOVÁ⁴¹, L. KREIS⁹⁷, M. KRETZ⁴³, M. KRVIDA^{59,101}, F. KRIZEK⁸⁴, E. KRYSHEN^{86,36}, M. KRZEWICKI⁴³, A.M. KUBERA²⁰, V. KUČERA⁸⁴, C. KUHN⁵⁵, P.G. KUIJER⁸², A. KUMAR⁹¹, J. KUMAR⁴⁸, L. KUMAR⁸⁸, S. KUMAR⁴⁸, P. KURASHVILI⁷⁷, A. KUREPIN⁵⁶, A.B. KUREPIN⁵⁶, A. KURYAKIN⁹⁹, M.J. KWON⁵⁰, Y. KWON¹³⁷, S.L. LA POINTE¹¹⁰, P. LA ROCCA²⁹, P. LADRON DE GUEVARA¹¹, C. LAGANA FERNANDES¹²⁰, I. LAKOMOV³⁶, R. LANGOY⁴², C. LARA⁵², A. LARDEUX¹⁵, A. LATTUCA²⁷, E. LAUDI³⁶, R. LEA²⁶, L. LEARDINI⁹⁴, G.R. LEE¹⁰¹, S. LEE¹³⁷, F. LEHAS⁸², R.C. LEMMON⁸³, V. LENTI¹⁰³, E. LEOGRANDE⁵⁷, I. LEÓN MONZÓN¹¹⁹, H. LEÓN VARGAS⁶⁴, M. LEONCINO²⁷, P. LÉVAI¹³⁵, S. LI^{7,70}, X. LI¹⁴, F. LIEBSKE⁵³, J. LIEN⁴², R. LIETAVA¹⁰¹, S. LINDAL²², V. LINDENSTRUTH⁴³, C. LIPPMANN⁹⁷, M.A. LISA²⁰, H.M. LJUNGGREN³⁴, D.F. LODATO⁵⁷, P.I. LOENNE¹⁸, V. LOGINOV⁷⁵, C. LOIZIDES⁷⁴, X. LOPEZ⁷⁰, E. LÓPEZ TORRES⁹, A. LOWE¹³⁵, P. LUETTIG⁵³, M. LUNARDON³⁰, G. LUPARELLO²⁶, T.H. LUTZ¹³⁶, A. MAEVSKAYA⁵⁶, M. MAGER³⁶, S. MAHAJAN⁹¹, S.M. MAHMOOD²², A. MAIRE⁵⁵, R.D. MAJKA¹³⁶, M. MALAEV⁸⁶, I. MALDONADO CERVANTES⁶³, L. MALININA^{142,66}, D. MAL'KEVICH⁵⁸, P. MALZACHER⁹⁷, A. MAMONOV⁹⁹, V. MANKO⁸⁰, F. MANSO⁷⁰, V. MANZARI^{36,103}, M. MARCHISONE^{27,65,126}, J. MAREŠ⁶⁰, G.V. MARGAGLIOTTI²⁶, A. MARGOTTI¹⁰⁴, J. MARGUTTI⁵⁷, A. MARÍN⁹⁷, C. MARKERT¹¹⁸, M. MARQUARD⁵³, N.A. MARTIN⁹⁷, J. MARTIN BLANCO¹¹³, P. MARTINENG³⁶, M.I. MARTÍNEZ², G. MARTÍNEZ GARCÍA¹¹³, M. MARTINEZ PEDREIRA³⁶, A. MAS¹²⁰, S. MASCIOCCHI⁹⁷, M. MASERA²⁷, A. MASON¹⁰⁵, L. MASSACRIER¹¹³, A. MASTROSERIO³³, A. MATYJA¹¹⁷, C. MAYER^{117,36}, J. MAZER¹²⁵, M.A. MAZZONI¹⁰⁸, D. MCDONALD¹²², A. MECHLER⁵³, F. MEDDI²⁴, Y. MELIKYAN⁷⁵, A. MENCHACA-ROCHA⁶⁴, E. MENINNO³¹, J. MERCADO PÉREZ⁹⁴, M. MERES³⁹, Y. MIAKE¹²⁸, M.M. MIESKOLAINEN⁴⁶, K. MIKHAYLOV^{66,58}, L. MILANO^{74,36}, J. MILOSEVIC²², L.M. MINERVINI^{103,23}, A. MÍSCHKE⁵⁷, A.N. MISHRA⁴⁹, D. MÍSKOWIEC⁹⁷, J. MITRA¹³², C.M. MITU⁶², N. MOHAMADI⁵⁷, B. MOHANTY^{79,132}, L. MOLNAR^{55,113}, L. MONTAÑO ZETINA¹¹, E. MONTES¹⁰, D.A. MOREIRA DE GODOY^{113,54}, L.A.P. MORENO², S. MORETTO³⁰, A. MORREALE¹¹³, A. MORSCH³⁶, V. MUCCIFORA⁷², E. MUDNIC¹¹⁶, D. MÜHLHEIM⁵⁴, S. MÜHURI¹³², M. MUKHERJEE¹³², J.D. MULLIGAN¹³⁶, M.G. MUNHOZ¹²⁰, R.H. MUNZER^{37,93}, H. MURAKAMI¹²⁷, S. MURRAY⁶⁵, L. MUSA³⁶, J. MUSINSKY⁵⁹, B. NAIK⁴⁸, R. NAIR⁷⁷, B.K. NANDI⁴⁸, R. NANIA¹⁰⁴, E. NAPPI¹⁰³, M.U. NARU¹⁶, H. NATAL DA LUZ¹²⁰, C. NATTRASS¹²⁵, S.R. NAVARRO², K. NAYAK⁷⁹, R. NAYAK⁴⁸, T.K. NAYAK¹³², S. NAZARENKO⁹⁹, A. NEDOSEKIN⁵⁸, L. NELLEN⁶³, F. NG¹²², M. NICASSIO⁹⁷, M. NICULESCU⁶², J. NIEDZIELA³⁶, B.S. NIELSEN⁸¹, S. NIKOLAEV⁸⁰, S. NIKULIN⁸⁰, V. NIKULIN⁸⁶, F. NOFERINI^{104,12}, P. NOMOKONOV⁶⁶, G. NOOREN⁵⁷, J.C.C. NORIS², J. NORMAN¹²⁴, A. NYANIN⁸⁰, J. NYSTRAND¹⁸, H. OESCHLER⁹⁴, S. OH¹³⁶, S.K. OH⁶⁷, A. OHLSÖN³⁶, A. OKATAN⁶⁹, T. OKUBO⁴⁷, L. OLÁH¹³⁵, J. OLENIACZ¹³³, A.C. OLIVEIRA DA SILVA¹²⁰, M.H. OLIVER¹³⁶, J. OENDERWAATER⁹⁷, C. OPPEDISANO¹¹⁰, R. ORAVA⁴⁶, A. ORTIZ VELASQUEZ⁶³, A. OSKARSSON³⁴, J. OTWINOWSKI¹¹⁷, K. OYAMA^{94,76}, M. OZDEMIR⁵³, Y. PACHMAYER⁹⁴, P. PAGANO³¹, G. PAIĆ⁶³, S.K. PALI¹³², J. PAN¹³⁴, A.K. PANDEY⁴⁸, P. PAPCU¹¹⁵, V. PAPIKYAN¹, G.S. PAPPALARDO¹⁰⁶, P. PAREEK⁴⁹, W.J. PARK⁹⁷, S. PARMAR⁸⁸, A. PASSFELD⁵⁴, V. PATICCHIO¹⁰³, R.N. PATRA¹³², B. PAUL¹⁰⁰, H. PEI⁷, T. PEITZMANN⁵⁷, H. PEREIRA DA COSTA¹⁵, D. PERESUNKO^{80,75}, C.E. PÉREZ LARA⁸², E. PÉREZ LEZAMA⁵³, V. PESKOV⁵³, Y. PESTOV⁵, V. PETRÁČEK⁴⁰, V. PETROV¹¹¹, M. PETROVICH⁷⁸, C. PETTA²⁹, S. PIANO¹⁰⁹, M. PIKNA³⁹, P. PILLOT¹¹³, L.O.D.L. PIMENTEL⁸¹, O. PINAZZA^{36,104}, L. PINSKY¹²², D.B. PIYARATHNA¹²², M. PŁOSKON⁷⁴, M. PLANINIC¹²⁹, F. PLIQUET⁵³, J. PLUTA¹³³, S. POCHYBOVA¹³⁵, P.L.M. PODESTA-LERMA¹¹⁹, M.G. POGHOSYAN^{85,87}, B. POLICHTCHOUK¹¹¹, N. POLJAK¹²⁹, W. POONSAWAT¹¹⁴, A. POP⁷⁸, S. PORTEEBOUEF-HOUSSAIS⁷⁰, J. PORTER⁷⁴, J. POSPISIL⁸⁴, S.K. PRASAD⁴, R. PREGHENELLA^{104,36}, F. PRINO¹¹⁰, C.A. PRUNEAU¹³⁴, I. PSHENICHNOV⁵⁶, M. PUCCIO²⁷, G. PUDDU²⁵, P. PUJAHARI¹³⁴, V. PUNIN⁹⁹, J. PUTSCHKÉ¹³⁴, H. QVIGSTAD²², A. RACHEVSKI¹⁰⁹, S. RAHA⁴, S. RAJPUT⁹¹, J. RAK¹²³, A. RAKOTOZAFINDRABE¹⁵, L. RAMELLO³², F. RAMI⁵⁵, R. RANIWALA⁹², S. RANIWALA⁹², S.S. RÄSÄNEN⁴⁶, B.T. RASCANU⁵³, D. RATHEE⁸⁸, K.F. READ^{125,85}, K. REDLICH⁷⁷, R.J. REED¹³⁴,

A. REHMAN¹⁸, P. REICHELT⁵³, F. REIDT^{94,36}, X. REN⁷, R. RENFORD⁵³, A.R. REOLON⁷², A. RESHETIN⁵⁶, J.-P. REVOL¹², K. REYGER⁹⁴, V. RIABOV⁸⁶, R.A. RICCI⁷³, T. RICHERT³⁴, M. RICHTER²², P. RIEDLER³⁶, W. RIEGLER³⁶, F. RIGGI²⁹, C. RISTEA⁶², E. ROCCO⁵⁷, M. RODRÍGUEZ CAHUANTZI^{2,11}, A. RODRIGUEZ MANSO⁸², K. RØED²², E. ROGOCHAYA⁶⁶, D. ROHR⁴³, D. RÖHRICH¹⁸, R. ROMITA¹²⁴, F. RONCHETTI^{72,36}, L. RONFLETTE¹¹³, P. ROSNET⁷⁰, A. ROSSI^{30,36}, F. ROUKOUTAKIS⁸⁹, A. ROY⁴⁹, C. ROY⁵⁵, P. ROY¹⁰⁰, A.J. RUBIO MONTERO¹⁰, R. RUI²⁶, R. RUSSO²⁷, E. RYABINKIN⁸⁰, Y. RYABOV⁸⁶, A. RYBICKI¹¹⁷, S. SADOVSKY¹¹¹, K. ŠAFÁŘÍK³⁶, B. SAHLMULLER⁵³, P. SAHOO⁴⁹, R. SAHOO⁴⁹, S. SAHOOG⁶¹, P.K. SAHU⁶¹, J. SAINI¹³², S. SAKAI⁷², M.A. SALEH¹³⁴, J. SALZWEDEL²⁰, S. SAMBYAL⁹¹, V. SAMSONOV⁸⁶, L. ŠÁNDOR⁵⁹, A. SANDOVAL⁶⁴, M. SANO¹²⁸, D. SARKAR¹³², P. SARMA⁴⁵, E. SCAPPARONE¹⁰⁴, F. SCARLASSARA³⁰, S. SCHEID⁵³, C. SCHIAUA⁷⁸, R. SCHICKER⁹⁴, C. SCHMIDT⁹⁷, H.R. SCHMIDT³⁵, O. SCHMIDT⁹⁴, S. SCHUCHMANN⁵³, J. SCHUKRAFT³⁶, M. SCHULC⁴⁰, T. SCHUSTER¹³⁶, Y. SCHUTZ^{36,113}, K. SCHWARZ⁹⁷, K. SCHWEDA⁹⁷, G. SCIOLI²⁸, E. SCOMPARINI¹¹⁰, R. SCOTT¹²⁵, M. ŠEFČÍK⁴¹, J.E. SEGER⁸⁷, Y. SEKIGUCHI¹²⁷, D. SEKIHATA⁴⁷, I. SELYUZHENKOV⁹⁷, K. SENOSI⁶⁵, S. SENYUKOV^{3,36}, E. SERRADILLA^{10,64}, A. SEVCENCO⁶², A. SHABANOV⁵⁶, A. SHABETAI¹¹³, O. SHADURA³, R. SHAHOYAN³⁶, A. SHANGARAEV¹¹¹, A. SHARMA⁹¹, M. SHARMA⁹¹, M. SHARMA⁹¹, N. SHARMA¹²⁵, K. SHIGAKI⁴⁷, K. SHTEIER^{9,27}, Y. SIBIRIAK⁸⁰, S. SIDDHANTA¹⁰⁵, K.M. SIELEWICZ³⁶, T. SIEMIARCZUK⁷⁷, D. SILVERMYR³⁴, C. SILVESTRE⁷¹, G. SIMATOVIC¹²⁹, G. SIMONETTI³⁶, R. SINGARAJU¹³², R. SINGH⁷⁹, S. SINGHA^{132,79}, V. SINGHAL¹³², B.C. SINHA¹³², T. SINHA¹⁰⁰, B. SITAR³⁹, M. SITTA³², T.B. SKAALI²², M. SLUPECKI¹²³, N. SMIRNOV¹³⁶, R.J.M. SNELLINGS⁵⁷, T.W. SNELLMAN¹²³, C. SØGAARD³⁴, J. SONG⁹⁶, M. SONG¹³⁷, Z. SONG⁷, F. SORAMEL³⁰, S. SORENSEN¹²⁵, R.D. DE SOUZA¹²¹, F. SOZZI⁹⁷, M. SPACEK⁴⁰, E. SPIRITI⁷², I. SPUTOWSKA¹¹⁷, M. SPYROPOULOU-STASSINAKI⁸⁹, J. STACHEL⁹⁴, I. STAN⁶², P. STANKUS⁸⁵, G. STEFAANEK⁷⁷, E. STENLUND³⁴, G. STEYNN⁶⁵, J.H. STILLER⁹⁴, D. STOCCHI¹¹³, P. STRMEN³⁹, A.A.P. SUAIDE¹²⁰, T. SUGITATE⁴⁷, C. SUIRE⁵¹, M. SULEYMANOV¹⁶, M. SULJIC^{139,26}, R. SULTANOV⁵⁸, M. ŠUMBERA⁸⁴, A. SZABO³⁹, A. SZANTO DE TOLEDO^{139,120}, I. SZARKA³⁹, A. SZCZEPANKIEWICZ³⁶, M. SZYMANSKI¹³³, U. TABASSAM¹⁶, J. TAKAHASHI¹²¹, G.J. TAMBAVE¹⁸, N. TANAKA¹²⁸, M.A. TANGARO³³, M. TARHINI⁵¹, M. TARIQ¹⁹, M.G. TARZILA⁷⁸, A. TAURO³⁶, G. TEJEDA MUÑOZ², A. TELESCA³⁶, K. TERASAKI¹²⁷, C. TERREVOLI³⁰, B. TEYSSIER¹³⁰, J. THÄDER⁷⁴, D. THOMAS¹¹⁸, R. TIEULENT¹³⁰, A.R. TIMMINS¹²², A. TOIA⁵³, S. TROGOLO²⁷, G. TROMBETTA³³, V. TRUBNIKOV³, W.H. TRZASKA¹²³, T. TSUJI¹²⁷, A. TUMKIN⁹⁹, R. TURRISI¹⁰⁷, T.S. TVETER²², K. ULLALAND¹⁸, A. URAS¹³⁰, G.L. USAI²⁵, A. UTROBICIC¹²⁹, M. VAJZER⁸⁴, M. VALA⁵⁹, L. VALENCIA PALOMO⁷⁰, S. VALLERO²⁷, J. VAN DER MAAREL⁵⁷, J.W. VAN HOORNE³⁶, M. VAN LEEUWEN⁵⁷, T. VANAT⁸⁴, P. VANDE VYVRE³⁶, D. VARGA¹³⁵, A. VARGAS², M. VARGYAS¹²³, R. VARMA⁴⁸, M. VASILEIOU⁸⁹, A. VASILIEV⁸⁰, A. VAUTHIER⁷¹, V. VECHERNIN¹³¹, A.M. VEEN⁵⁷, M. VELDHOEN⁵⁷, A. VELURE¹⁸, M. VENARUZZO⁷³, E. VERCELLINI²⁷, R. VERCLAS⁹⁴, S. VERGARA LIMÓN², R. VERNET⁸, M. VERWEIJ¹³⁴, L. VICKOVIC¹¹⁶, G. VIESTI^{139,30}, J. VIINIKAINEN¹²³, Z. VILAKAZI¹²⁶, O. VILLALOBOS BAILLIE¹⁰¹, A. VILLATORO TELLO², A. VINOGRADOV⁸⁰, L. VINOGRADOV¹³¹, Y. VINOGRADOV^{139,99}, T. VIRGILI³¹, V. VISLAVICIUS³⁴, Y.P. VIYOGI¹³², A. VODOPYANOV⁶⁶, M.A. VÖLKL⁹⁴, K. VOLOSHIN⁵⁸, S.A. VOLOSHIN¹³⁴, G. VOLPE³³, B. VON HALLER³⁶, I. VOROBYEV^{37,93}, D. VRANIC^{97,36}, J. VRLÁKOVÁ⁴¹, B. VULPECU⁷⁰, B. WAGNER¹⁸, J. WAGNER⁹⁷, H. WANG⁵⁷, M. WANG^{7,113}, D. WATANABE¹²⁸, Y. WATANABE¹²⁷, M. WEBER^{36,112}, S.G. WEBER⁹⁷, D.F. WEISER⁹⁴, J.P. WESSELS⁵⁴, U. WESTERHOFF⁵⁴, A.M. WHITEHEAD⁹⁰, J. WIECHULA³⁵, J. WIKNE²², G. WILK⁷⁷, J. WILKINSON⁹⁴, M.C.S. WILLIAMS¹⁰⁴, B. WINDELBAND⁹⁴, M. WINN⁹⁴, H. YANG⁵⁷, P. YANG⁷, S. YANO⁴⁷, C. YASAR⁶⁹, Z. YIN⁷, H. YOKOYAMA¹²⁸, I.-K. YOO⁹⁶, J.H. YOON⁵⁰, V. YURCHENKO³, I. YUSHMANOV⁸⁰, A. ZABOROWSKA¹³³, V. ZACCOLO⁸¹, A. ZAMAN¹⁶, C. ZAMPOLLI^{36,104}, H.J.C. ZANOLI¹²⁰, S. ZAPOROZHETS⁶⁶, N. ZARDOSHTI¹⁰¹, A. ZAROCHENTSEV¹³¹, P. ZÁVADA⁶⁰, N. ZAVIYALOV⁹⁹, H. ZBROSCZYK¹³³, I.S. ZGURA⁶², M. ZHALOV⁸⁶, H. ZHANG¹⁸, X. ZHANG⁷⁴, Y. ZHANG⁷, C. ZHANG⁵⁷, Z. ZHANG⁷, C. ZHAO²², N. ZHIGAREVA⁵⁸, D. ZHOU⁷, Y. ZHOU⁸¹, Z. ZHOU¹⁸, H. ZHU¹⁸, J. ZHU^{113,7}, A. ZICHICHI^{28,12}, A. ZIMMERMANN⁹⁴, M.B. ZIMMERMANN^{54,36}, G. ZINOVJEV³ und M. ZYZAK⁴³ — 1 A.I. Alikhanian National Science Laboratory (Yerevan Physics Institute) Foundation, Yerevan, Armenia — 2 Benemerita Universidad Autónoma de Puebla, Puebla, Mexico — 3 Bogolyubov Institute for Theoretical Physics, Kiev, Ukraine — 4 Bose Institute, Depart-

ment of Physics and Centre for Astroparticle Physics and Space Science (CAPSS), Kolkata, India — 5 Budker Institute for Nuclear Physics, Novosibirsk, Russia — 6 California Polytechnic State University, San Luis Obispo, California, United States — 7 Central China Normal University, Wuhan, China — 8 Centre de Calcul de l'IN2P3, Villeurbanne, France — 9 Centro de Aplicaciones Tecnológicas y Desarrollo Nuclear (CEA-DEN), Havana, Cuba — 10 Centro de Investigaciones Energéticas Medioambientales y Tecnológicas (CIEMAT), Madrid, Spain — 11 Centro de Investigación y de Estudios Avanzados (CINVESTAV), Mexico City and Mérida, Mexico — 12 Centro Fermi - Museo Storico della Fisica e Centro Studi e Ricerche "Enrico Fermi", Rome, Italy — 13 Chicago State University, Chicago, Illinois, USA — 14 China Institute of Atomic Energy, Beijing, China — 15 Commissariat à l'Energie Atomique, IRFU, Saclay, France — 16 COMSATS Institute of Information Technology (CIIT), Islamabad, Pakistan — 17 Departamento de Física de Partículas and IGFAE, Universidad de Santiago de Compostela, Santiago de Compostela, Spain — 18 Department of Physics and Technology, University of Bergen, Bergen, Norway — 19 Department of Physics, Aligarh Muslim University, Aligarh, India — 20 Department of Physics, Ohio State University, Columbus, Ohio, United States — 21 Department of Physics, Sejong University, Seoul, South Korea — 22 Department of Physics, University of Oslo, Oslo, Norway — 23 Dipartimento di Elettrotecnica ed Elettronica del Politecnico, Bari, Italy — 24 Dipartimento di Fisica dell'Università 'La Sapienza' and Sezione INFN Rome, Italy — 25 Dipartimento di Fisica dell'Università and Sezione INFN, Cagliari, Italy — 26 Dipartimento di Fisica dell'Università and Sezione INFN, Trieste, Italy — 27 Dipartimento di Fisica dell'Università and Sezione INFN, Turin, Italy — 28 Dipartimento di Fisica e Astronomia dell'Università and Sezione INFN, Bologna, Italy — 29 Dipartimento di Fisica e Astronomia dell'Università and Sezione INFN, Catania, Italy — 30 Dipartimento di Fisica e Astronomia dell'Università and Sezione INFN, Padova, Italy — 31 Dipartimento di Fisica 'E.R. Caianiello' dell'Università and Gruppo Collegato INFN, Salerno, Italy — 32 Dipartimento di Scienze e Innovazione Tecnologica dell'Università del Piemonte Orientale and Gruppo Collegato INFN, Alessandria, Italy — 33 Dipartimento Interateneo di Fisica 'M. Merlin' and Sezione INFN, Bari, Italy — 34 Division of Experimental High Energy Physics, University of Lund, Lund, Sweden — 35 Eberhard Karls Universität Tübingen, Tübingen, Germany — 36 European Organization for Nuclear Research (CERN), Geneva, Switzerland — 37 Excellence Cluster Universe, Technische Universität München, Munich, Germany — 38 Faculty of Engineering, Bergen University College, Bergen, Norway — 39 Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava, Slovakia — 40 Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University in Prague, Prague, Czech Republic — 41 Faculty of Science, P.J. Šafárik University, Košice, Slovakia — 42 Faculty of Technology, Buskerud and Vestfold University College, Vestfold, Norway — 43 Frankfurt Institute for Advanced Studies, Johann Wolfgang Goethe-Universität Frankfurt, Frankfurt, Germany — 44 Gangneung-Wonju National University, Gangneung, South Korea — 45 Gauhati University, Department of Physics, Guwahati, India — 46 Helsinki Institute of Physics (HIP), Helsinki, Finland — 47 Hiroshima University, Hiroshima, Japan — 48 Indian Institute of Technology Bombay (IIT), Mumbai, India — 49 Indian Institute of Technology Indore, Indore (IITI), India — 50 Inha University, Incheon, South Korea — 51 Institut de Physique Nucléaire d'Orsay (IPNO), Université Paris-Sud, CNRS-IN2P3, Orsay, France — 52 Institut für Informatik, Johann Wolfgang Goethe-Universität Frankfurt, Frankfurt, Germany — 53 Institut für Kernphysik, Johann Wolfgang Goethe-Universität Frankfurt, Frankfurt, Germany — 54 Institut für Kernphysik, Westfälische Wilhelms-Universität Münster, Münster, Germany — 55 Institut Pluridisciplinaire Hubert Curien (IPHC), Université de Strasbourg, CNRS-IN2P3, Strasbourg, France — 56 Institute for Nuclear Research, Academy of Sciences, Moscow, Russia — 57 Institute for Subatomic Physics of Utrecht University, Utrecht, Netherlands — 58 Institute for Theoretical and Experimental Physics, Moscow, Russia — 59 Institute of Experimental Physics, Slovak Academy of Sciences, Košice, Slovakia — 60 Institute of Physics, Academy of Sciences of the Czech Republic, Prague, Czech Republic — 61 Institute of Physics, Bhubaneswar, India — 62 Institute of Space Science (ISS), Bucharest, Romania — 63 Instituto de Ciencias Nucleares, Universidad Nacional Autónoma de México, Mexico City, Mexico — 64 Instituto de Física, Universidad Nacional Autónoma de México, Mexico City, Mexico — 65 iThemba LABS, National Research Foundation, Somerset West, South Africa — 66 Joint Institute for Nuclear Research (JINR), Dubna, Russia — 67 Konkuk University, Seoul, South Korea — 68 Korea Institute of Science and Technology Information, Daejeon, South Korea

—⁶⁹KTO Karatay University, Konya, Turkey —⁷⁰Laboratoire de Physique Corpusculaire (LPC), Clermont Université, Université Blaise Pascal, CNRS-IN2P3, Clermont-Ferrand, France —⁷¹Laboratoire de Physique Subatomique et de Cosmologie, Université Grenoble-Alpes, CNRS-IN2P3, Grenoble, France —⁷²Laboratori Nazionali di Frascati, INFN, Frascati, Italy —⁷³Laboratori Nazionali di Legnaro, INFN, Legnaro, Italy —⁷⁴Lawrence Berkeley National Laboratory, Berkeley, California, United States —⁷⁵Moscow Engineering Physics Institute, Moscow, Russia —⁷⁶Nagasaki Institute of Applied Science, Nagasaki, Japan —⁷⁷National Centre for Nuclear Studies, Warsaw, Poland —⁷⁸National Institute for Physics and Nuclear Engineering, Bucharest, Romania —⁷⁹National Institute of Science Education and Research, Bhubaneswar, India —⁸⁰National Research Centre Kurchatov Institute, Moscow, Russia —⁸¹Niels Bohr Institute, University of Copenhagen, Copenhagen, Denmark —⁸²Nikhef, Nationaal instituut voor subatomaire fysica, Amsterdam, Netherlands —⁸³Nuclear Physics Group, STFC Daresbury Laboratory, Daresbury, United Kingdom —⁸⁴Nuclear Physics Institute, Academy of Sciences of the Czech Republic, Řež u Prahy, Czech Republic —⁸⁵Oak Ridge National Laboratory, Oak Ridge, Tennessee, United States —⁸⁶Petersburg Nuclear Physics Institute, Gatchina, Russia —⁸⁷Physics Department, Creighton University, Omaha, Nebraska, United States —⁸⁸Physics Department, Panjab University, Chandigarh, India —⁸⁹Physics Department, University of Athens, Athens, Greece —⁹⁰Physics Department, University of Cape Town, Cape Town, South Africa —⁹¹Physics Department, University of Jammu, Jammu, India —⁹²Physics Department, University of Rajasthan, Jaipur, India —⁹³Physik Department, Technische Universität München, Munich, Germany —⁹⁴Physikalisches Institut, Ruprecht-Karls-Universität Heidelberg, Heidelberg, Germany —⁹⁵Purdue University, West Lafayette, Indiana, United States —⁹⁶Pusan National University, Pusan, South Korea —⁹⁷Research Division and ExtreMe Matter Institute EMMI, GSI Helmholtzzentrum für Schwerionenforschung, Darmstadt, Germany —⁹⁸Rudjer Bošković Institute, Zagreb, Croatia —⁹⁹Russian Federal Nuclear Center (VNIIEF), Sarov, Russia —¹⁰⁰Saha Institute of Nuclear Physics, Kolkata, India —¹⁰¹School of Physics and Astronomy, University of Birmingham, Birmingham, United Kingdom —¹⁰²Sección Física, Departamento de Ciencias, Pontificia Universidad Católica del Perú, Lima, Peru —¹⁰³Sezione INFN, Bari, Italy —¹⁰⁴Sezione INFN, Bologna, Italy —¹⁰⁵Sezione INFN, Cagliari, Italy —¹⁰⁶Sezione INFN, Catania, Italy —¹⁰⁷Sezione INFN, Padova, Italy —¹⁰⁸Sezione INFN, Rome, Italy —¹⁰⁹Sezione INFN, Trieste, Italy —¹¹⁰Sezione INFN, Turin, Italy —¹¹¹SSC IHEP of NRC Kurchatov institute, Protvino, Russia —¹¹²Stefan Meyer Institut für Subatomare Physik (SMI), Vienna, Austria —¹¹³SUBATECH, Ecole des Mines de Nantes, Université de Nantes, CNRS-IN2P3, Nantes, France —¹¹⁴Suranaree University of Technology, Nakhon Ratchasima, Thailand —¹¹⁵Technical University of Košice, Košice, Slovakia —¹¹⁶Technical University of Split FESB, Split, Croatia —¹¹⁷The Henryk Niewodniczanski Institute of Nuclear Physics, Polish Academy of Sciences, Cracow, Poland —¹¹⁸The University of Texas at Austin, Physics Department, Austin, Texas, USA —¹¹⁹Universidad Autónoma de Sinaloa, Culiacán, Mexico —¹²⁰Universidade de São Paulo (USP), São Paulo, Brazil —¹²¹Universidade Estadual de Campinas (UNICAMP), Campinas, Brazil —¹²²University of Houston, Houston, Texas, United States —¹²³University of Jyväskylä, Jyväskylä, Finland —¹²⁴University of Liverpool, Liverpool, United Kingdom —¹²⁵University of Tennessee, Knoxville, Tennessee, United States —¹²⁶University of the Witwatersrand, Johannesburg, South Africa —¹²⁷University of Tokyo, Tokyo, Japan —¹²⁸University of Tsukuba, Tsukuba, Japan —¹²⁹University of Zagreb, Zagreb, Croatia —¹³⁰Université de Lyon, Université Lyon 1, CNRS/IN2P3, IPN-Lyon, Villeurbanne, France —¹³¹V. Fock Institute for Physics, St. Petersburg State University, St. Petersburg, Russia —¹³²Variable Energy Cyclotron Centre, Kolkata, India —¹³³Warsaw University of Technology, Warsaw, Poland —¹³⁴Wayne State University, Detroit, Michigan, United States —¹³⁵Wigner Research Centre for Physics, Hungarian Academy of Sciences, Budapest, Hungary —¹³⁶Yale University, New Haven, Connecticut, United States —¹³⁷Yonsei University, Seoul, South Korea —¹³⁸Zentrum für Technologietransfer und Telekommunikation (ZTT), Fachhochschule Worms, Worms, Germany —¹³⁹Deceased —¹⁴⁰Also at: Georgia State University, Atlanta, Georgia, United States —¹⁴¹Also at Department of Applied Physics, Aligarh Muslim University, Aligarh, India —¹⁴²Also at: M.V. Lomonosov Moscow State University, D.V. Skobeltsyn Institute of Nuclear Physics, Moscow, Russia

Koll 5: aSPECT-Kollaboration

MARCUS BECK^{1,2}, EDWARD BICKMANN¹, FERENCE GLÜCK³, JAN

HAACK¹, WERNER HEIL¹, RISHI HORN¹, JAN KAHLENBERG¹, GERTRUD KONRAD^{4,5}, ROMAIN MAISONOBE⁶, KIM ROSS¹, CHRISTIAN SCHMIDT¹, MARTIN SIMSON⁶, TORSTEN SOLDNER⁶, DAVID STIPP¹, ROMAIN VIROT⁶, ALEXANDER WUNDERLE¹ und OLIVER ZIMMER⁶ —¹Johannes Gutenberg-Universität Mainz, Mainz, Germany —²Helmholtz Institut Mainz, Mainz, Germany —³Karlsruher Institut für Technologie, Karlsruhe, Germany —⁴Technische Universität Wien, Wien, Austria —⁵Österreichische Akademie der Wissenschaften, Wien, Austria —⁶Institute Laue-Langevin, Grenoble, France

Koll 6: Baryon Antibaryon Symmetry Experiment-Kollaboration

STEFAN ULMER¹, KLAUS BLAUM², MATTHIAS BORCHERT³, TAKASHI HIGUCHI^{1,4}, NATHAN LEEFER^{5,6}, YASUYUKI MATSUDA⁴, ANDREAS MOOSER¹, KAI METANG⁶, HIROKI NAGAHAMA^{1,4}, MALTE NIEMANN³, CHRISTIAN OSPELKAU^{3,7}, WOLFGANG QUINT^{8,9}, GEORG L. SCHNEIDER^{5,6}, STEFAN SELLNER¹, CHRISTIAN SMORIA¹⁰, TOYA TANAKA⁴, JOCHEN WALZ^{5,6} und YASUNORI YAMAZAKI¹¹ —¹RIKEN, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan —²Max-Planck-Institut für Kernphysik, Saupfercheckweg 1, 69117 Heidelberg, Germany —³Institute of Quantum Optics, Leibniz Universität Hannover, Welfengarten 1, 30167 Hannover, Germany —⁴Graduate School of Arts and Sciences, University of Tokyo, 3-8-1 Komaba, Meguro-ku, Tokyo 153-8902, Japan —⁵Helmholtz-Institut Mainz, 55099 Mainz, Germany —⁶Institut für Physik, Johannes Gutenberg-Universität Mainz, 55099 Mainz, Germany —⁷Physikalisch-Technische Bundesanstalt, Bundesallee 100, 38116 Braunschweig, Germany —⁸GSI-Helmholtzzentrum für Schwerionenforschung, 64291 Darmstadt, Germany —⁹Ruprecht-Karls-Universität Heidelberg, 69047 Heidelberg, Germany —¹⁰CERN, 1211 Geneva 23, Switzerland —¹¹Atomic Physics Laboratory, RIKEN, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan

Koll 7: BESIII-Kollaboration

DEXU LIN — Helmholtz-Institut Mainz, 55128 Mainz, Germany

Koll 8: BGO-OD-Kollaboration

STEFAN ALEF¹, BETTINA BANTES¹, DAIR BAYADILOV², REINHARD BECK², MAX BECKER², ANDREAS BELLA¹, SABINE BOESE², ALESSANDRO BRAGHIERI³, KAI-THOMAS BRINKMANN⁴, DMYTRO BURDEYNYI⁵, PHILIP COLE¹, RACHELE DI SALVO⁶, HARTMUT DUTZ¹, DANIEL ELSNER¹, ALESSIA FANTINI^{6,7}, OLIVER FREYERMUTH¹, STEFAN FRIEDRICH⁴, FRANK FROMMBERGER¹, VLADIMIR GANENKO⁵, GIANPIERO GERVINO^{8,9}, FRANCESCO GHIO^{10,11}, GIORGIO GIARDINA^{12,13}, STEFAN GOERTZ¹, ANATOLY GRIDNEV¹⁴, ERIC GUTZ⁴, DANIEL HAMMANN¹, JÜRGEN HANNAPPEL¹, WOLFGANG HILLERT¹, ALEXANDER IGNATOV¹⁵, RAINER JOOSTEN², TOM JUDE¹, FRITZ KLEIN¹, KATRIN KOHL¹, KARSTEN KOOP², BERND KRUSCHE¹⁶, ALEXANDER LAPIK¹⁵, CHIARA LA STORIA^{6,7}, PAOLO LEVI SANDRI¹⁷, IGOR V. LOPATIN¹⁴, GIUSEPPE MANDAGLIO^{12,13}, FRANCESCO MESSI¹, ROBERTO MESSI^{6,7}, VOLKER METAG⁴, DARIO MORICCIANI⁶, ALEXANDER MUSHKARENKO¹⁵, MARIANA NANOA⁴, VLADIMIR NEDOREZOV¹⁵, DMITRY NOVINSKYI¹⁴, PAOLO PEDRONI³, BJÖRN-ERIC REITZ¹, MARIA ROMANIUK⁶, TIGRAN ROSTOMYAN¹⁶, NICOLAI RUDNEV¹⁵, CARLO SCHAERF^{6,7}, GEORG SCHELUCHIN¹, HARTMUT SCHMIEDEN¹, ANATOLY STUGLEV¹⁴, VICTORIN SUMACHEV¹⁴, VIACHESLAV TARAKANOV¹⁴, VALENTINA VEGNA¹, DIETER WALTHER², DAN WATTS¹⁸, HANS-GEORG ZAUNICK⁴ und THOMAS ZIMMERMANN¹ —¹Physikalisches Institut, Nussallee 12, D-53115 Bonn —²Helmholtz-Institut für Strahlen- und Kernphysik, Nussallee 14-16, D-53115 Bonn —³INFN sezione di Pavia, Via Agostino Bassi, 6 - 27100 Pavia Italy —⁴Justus-Liebig-Universität Gießen, II. Physikalisches Institut, Heinrich-Buff-Ring 16, D 35392 Gießen —⁵National Science Center Kharkov Institute of Physics and Technology, Akademicheskaya St. 1, Kharkov, 61108, Ukraine —⁶INFN Roma Tor Vergata, Via della Ricerca Scientifica 1, 00133 Roma - Italy —⁷University of Rome "Tor Vergata", Physics department, Via della Ricerca Scientifica 1, 00133 Roma - Italy —⁸INFN sezione di Torino, Via P.Giuria 1, 10125 Torino Italia —⁹Dipartimento di Fisica, Università di Torino, via P. Giuria 1, 10125 Torino, Italy —¹⁰INFN sezione di Roma, c/o Dipartimento di Fisica - Università degli Studi di Roma "La Sapienza" P.le Aldo Moro, 2 - 00185 Roma - Italy —¹¹Istituto Superiore di Sanità, Viale Regina Elena 299, 00161 -Roma - Italy —¹²INFN sezione di Catania, 95129 Catania - Italy —¹³Università degli Studi di Messina, Via Consolato del Mare 41, 98121 Messina —¹⁴Petersburg Nuclear Physics Institute, Gatchina, Leningrad District, 188300 Russia —¹⁵Russian Academy of Sciences Institute for Nuclear Research, prospekt 60-letiya Oktyabrya 7a, Moscow 117312 Russia —

¹⁶Institut für Physik, Klingelbergstrasse 82, CH-4056 Basel — ¹⁷INFN - LNF, Via E. Fermi 40, 00044 Frascati Italy — ¹⁸The University of Edinburgh, James Clerk Maxwell Building, Mayfield Road, Edinburgh EH9 3JZ UK

Koll 9: CBELSA/TAPS-Kollaboration

FARAH AFZAL³, ALEXEI ANISOVICH^{3,5}, DAIR BAYADILOV^{3,5}, REINHARD BECK³, YURI BELOGLAZOV⁵, ALEXANDER BERLIN², KAI-THOMAS BRINKMANN⁶, MARCEL BORNSTEIN⁴, VOLKER CREDE⁷, MANUEL DIETERLE¹, PETER DREXLER⁶, HARTMUT DUTZ⁴, DANIEL ELSNER⁴, STEFAN FRIEDRICH⁶, FRANK FROMMBERGER⁴, STEFAN GOERTZ⁴, ANATOLY GRIDNEV⁵, MARCUS GRÜNER³, ERIC GUTZ⁶, DANIEL HAMMANN⁴, JÜRGEN HANNAPEL⁴, JAN HARTMANN³, JONAS HERICK², WOLFGANG HILLERT⁴, PHILIPP HOFFMEISTER³, CHRISTIAN HONISCH³, TOM JUDE⁴, FLORIAN KALISCHEWSKI³, IAKLIL KESHELASHVILI¹, BERNHARD KETZER³, PETER KLASSEN³, FRIEDRICH KLEIN⁴, EBERHARD KLEMPFT³, KARSTEN KOOP³, BERND KRUSCHE¹, MICHAEL LANG³, SEBASTIAN LUTTERER¹, IGOR LOPATIN⁵, PHILIPP MAHLBERG³, FRANCESCO MESSI⁴, VOLKER METAG⁶, WERNER MEYER², JONAS MÜLLER³, JOHANNES MÜLLERS³, MARINA NANOV⁶, VICTOR NIKONOV^{3,5}, DMITRY NOVINSKIY⁵, RAINER NOVOTNY⁶, JONATHAN OTTNAD³, PETER PAULI³, DAMIAN PIONTEK³, SCOTT REEVE⁴, GERHARD REICHERZ², TIGRAN ROSTOMYAN¹, STEFAN RUNKEL⁴, ANDREI SARANTSEV^{3,5}, DIMITRI SCHaab³, CHRISTOPH SCHMIDT³, HARTMUT SCHMIEDEN⁴, ROMAN SCHMITZ³, JAN SCHULTES³, TOBIAS SEIFEN³, CATHRINA SOWA², KARSTEN SPIEKER³, MATTHIAS STEINKE², VICTORIN SUMACHEV⁵, ANNICK THIEL³, ULRIKE THOMA³, TOBIAS TRIFFTERER², MARTIN URBAN³, GEORG URFF³, HARALD VAN PEE³, NATALIE WALFORD¹, DIETER WALThER³, CHRISTOPH WENDEL³, ULRICH WIEDNER², LILIAN WITTHAUER¹, YANNICK WUNDERLICH³, HANS-GEORG ZAUNICK⁶ and EUGENIA FIX³ — ¹Institut für Physik, Klingelbergstraße 82, CH-4056 Basel — ²Institut für Experimentalphysik, Universitätsstraße 150, D-44780 Bochum — ³Helmholtz-Institut für Strahlen- und Kernphysik, Nussallee 14-16, D-53115 Bonn — ⁴Physikalisches Institut, Nussallee 12, D-53115 Bonn — ⁵Petersburg Nuclear Physics Institute, Gatchina, Leningrad District, 188300 Russia — ⁶II. Physikalisches Institut, Heinrich-Buff-Ring 16, D-35392 Gießen — ⁷Florida State University, Tallahassee, FL 32306, USA

Koll 10: CBM-Kollaboration

TIMUR ABLYAZIMOV¹, ALHUSSAIN ABUHOZA^{2,62}, RAMA PRASAD ADAK³, MAREK ADAMCZYK⁴, MADAN MOHAN AGGARWAL⁵, ZUBAYER AHAMMED⁶, FIRDOUS AHMAD⁷, NAZEER AHMAD⁸, SHABIR AHMAD⁷, ALEXANDER AKINDINOV⁹, PAVEL AKISHIN¹, ELENA AKISHINA¹, TATIYANA AKISHINA¹, VALENTINA AKISHINA^{10,12}, ADEL AKRAM¹¹, MOHAMMAD AL-TURANY², IGOR ALEKSEEV⁹, EVGENY ALEXANDROV¹, IGOR ALEXANDROV¹, SAMIR AMAR-YOUSSEF¹², MAJA ANDJELIĆ¹³, OLGA ANDREEVA¹⁴, CRISTIAN ANDREI¹⁵, ANTON ANDRONIC², YURI ANISIMOV¹⁶, HARALD APPELSHÄUSER¹², ANDREAS AREND¹², DANUT ARGINTARU¹⁷, EDUARD ATKIN¹⁸, SERGEY AVDEEV¹⁶, RALF AVERBECK², MOHD. DANISH AZMI⁸, VALERICA BABAN¹⁷, MATTHIAS BACH¹⁰, EUGEN BADURA², STEFFEN BÄHR¹⁹, TANITA BALLE¹², TOMÁS BALOG², MATTHIAS BALZER¹⁹, SUDIPTA BANDYOPADHYAY²⁰, ERJIN BAO¹¹, NATALIA BARANOVA²¹, TADEUSZ BARCZYK⁴, DANIEL BARTOS¹⁵, SURAYA BASHIR⁷, MATEUSZ BASZCZYK²², OLEG BATENKOV²³, VICTOR BAUBLIS²⁴, MIRCEA BAZNAT¹⁶, JÜRGEN BECKER¹⁹, KARL-HEINZ BECKER²⁵, SERGEY BELOGUROV⁹, DMITRY BELYAKOV¹, JORDAN BENDAROUACH²⁶, IONELA BERCEANU¹⁵, ALEXANDRU BERCU¹⁵, ALEXANDER BERDNIKOV²⁷, YAROSLAV BERDNIKOV²⁷, ROLAND BERENDES²⁸, GENNADY BEREZIN¹⁶, CYRANO BERGMANN²⁸, DENIS BERTINI², OLGA BERTINI², CALIN BEŞLIU¹⁷, OLEG BEZHYYKO²⁹, PARTHA PRATIM BHADURI^{2,6}, ANJU BHASIN³⁰, ASHOK KUMAR BHATI⁵, BUDDHADEB BHATTACHARJEE³¹, ABHIJIT BHATTACHARYYA²⁰, TARUN KANTI BHATTACHARYYA³², THOMAS BLANK¹⁹, DMITRY BLAU³³, VITALI BLINOV², CHRISTOPH BLUME¹², YURI BOCHAROV¹⁸, JULIAN BOOK¹², TIMO BREITNER³⁴, ULRICH BRÜNING³⁵, JANUZZ BRZYCHCZYK⁴, ARKADIUSZ BUBAK³⁶, HENNER BÜSCHING¹², VLADIMIR BUTUZOV¹⁸, ALEXANDER BYCHKOV¹⁶, ADRIAN BYSZUK³⁷, XU CAI³⁸, MARIUS CĂLIN¹⁷, PING CAO³⁹, GHEORGHE CARAGHEORGHEOPOL¹⁵, IVANA CAREVIĆ¹³, VASILE CATANESCU¹⁵, AMLAN CHAKRABARTI²⁰, SANATAN CHATTOPADHYAY²⁰, SUBHASIS CHATTOPADHYAY⁶, AVINASH CHAUHAN⁴⁰, ANDRIY CHAUS⁴¹, HONGFANG CHEN³⁹, LU YAO CHEN³⁴, JIATING CHENG⁴², VICTOR CHEPURNOV¹⁶, HAMDA CHERIF^{12,2}, ANDREY CHERNOGOROV⁹, MIRCEA IULIU CIOBANU^{2,63}, GILLES CLAUS⁴³, FLORIN CONSTANTIN¹⁵, MÁTE CSANÁD⁴⁴, NICOLA D'ASCENZO⁴⁵, SUPRIYA DAS³, SUSOVAN DAS⁴⁶, JAN DE CUVELAND¹⁰, BAR-

NALI DEBNATH³¹, DMITRI DEMENTIEV¹⁶, ZHI DENG⁴², HARALD DEPPE², INGO DEPPNER¹¹, OLGA DERENOVSKAYA¹, CHRISTINA ANNA DEVEAUX²⁶, MICHAEL DEVEAUX¹², KALYAN DEY³¹, MADHUSUDAN DEY⁶, PASCAL DILLESEGER¹², VLADISLAV DOBYRN²⁴, DENNIS DOERING¹², SHENG DONG³⁸, WENDI DONG³⁸, ANDREI DOROKHOV⁴³, MICHAEL DRESCHMANN¹⁹, ALEKSANDRA DROZD²², ANAND KUMAR DUBEY⁶, STANISLAV DUBNICKHA¹⁶, ZUZANA DUBNICKHOVA¹⁶, MICHAEL DÜRR²⁶, LUDOMIR DUTKA⁴, MILE DŽELALIJA¹³, VLADIMIR V. ELSHA¹⁶, DAVID EMSCHERMANN², HEIKO ENGEL³⁴, VLADIMIR EREMIN⁴⁷, TIBERIU EŞANU¹⁷, JÜRGEN ESCHKE^{48,2}, DOMINIC ESCHWEILER¹⁰, HUANHUA FAN³⁹, XINGMING FAN⁴⁹, OLEG FATEEV¹⁶, SHENGQIN FENG⁵⁰, SHALINA FIGULI¹⁹, IRINA FILOZOVA¹, DMITRY FINOGEV¹⁴, PETER FISCHER³⁵, HOLGER FLEMMING², JÖRG FÖRTSCH²⁵, ULRICH FRANKENFELD², VOLKER FRIESE², EDUARD FRISKE⁴⁶, INGO FRÖHLICH¹², JOCHEN FRÜHAUF², JANUSZ GAJDA²², TETYANA GALATYUK^{51,2}, GAUTAM GANGOPADHYAY²⁰, CRUZ DE JESÚS GARCÍA CHÁVEZ³⁴, JANO GEBELEIN³⁴, PRADEEP GHOSH^{12,2}, SANJAY K. GHOSH³, SUSANNE GLÄSSEL¹², MATHIEU GOFFE⁴³, LARISA GOLINKA-BEZHYYKO²⁹, VJATCHESLAV GOLOVATYUK¹⁶, SERGEY GOLOVNYA⁵², VICTOR GOLOVTSOV²⁴, MARINA GOLUBEVA¹⁴, DMITRY GOLUBKOV⁹, ANDRÉS GÓMEZ RAMÍREZ³⁴, SERGEY GORBUNOV¹⁰, SERGEY GOROKHOV⁵², DIRK GOTTSCHALK¹¹, PAWEŁ GRYBOŚ²², ANDRZEJ GRZESZCZUK³⁶, FEDOR GUBER¹⁴, KONSTANTIN GUDIMA¹⁶, MAREK GUMIŃSKI³⁷, ANIK GUPTA³⁰, YURI GUSAKOV¹⁶, DONG HAN⁴², HELVI HARTMANN¹⁰, JÖRG HEHNER², NORBERT HEINE²⁸, ANDREI HERGHELEGIU¹⁵, NORBERT HERRMANN¹¹, BENJAMIN HESS⁴⁶, JOHANN M. HEUSER², ABDELKADER HIMMI⁴³, CLAUDIA HÖHNE²⁶, ROMAIN HOLZMANN², DONGDONG HU³⁹, GUANGMING HUANG³⁸, XINJIE HUANG⁴², DIRK HUTTER¹⁰, ELIZAVETA IAKOVLEVA¹⁰, ALEXANDER IERUSALIMOV¹⁶, ERNST-MICHAEL ILGENFRITZ¹⁶, MUHAMMAD IRFAN⁸, DMITRY IVANISCHEV²⁴, MARIAN IVANOV², PAVEL IVANOV¹⁸, VALERY IVANOV¹, VICTOR IVANOV¹, VLADIMIR IVANOV²⁴, ALEXANDER IVASHKIN¹⁴, KIMMO JAASKELAINEN⁴³, HUSHNUD JAHAN⁸, VIKAS JAIN⁶, VLADIMIR JAKOVLEV²³, THOMAS JANSON³⁴, DI JIANG³⁹, ALEXANDRU JIPA¹⁷, IGOR KADENKO²⁹, PHILIPP KÄHLER²⁸, BURKARD KÄMPFER^{49,64}, VALERY KALININ²³, KARL-HEINZ KAMPERT²⁵, EMIL KAPTUR³⁶, RADOSLAW KARABOWICZ², OLEG KARAVICHEV¹⁴, TATIANA KARAVICHEVA¹⁴, DMITRY KARMANOV²¹, VICTOR KARNAUKHOV¹⁶, EVGENY KARPECHEV¹⁴, KRZYSZTOF KASIŃSKI²², GRZEGORZ KASPROWICZ³⁷, MANJIT KAUR⁵, ANDREY KAZANTSEV³³, UDO KEBSCHULL³⁴, GEORGE KEKELIDZE¹⁶, M. MOHSIN KHAN⁸, SHUAIB AHMAD KHAN⁶, ALEXEI KHANZADEEV²⁴, FARID KHASANOV⁹, ANDREY KHVOROSTUKHIN¹⁶, VAHAN KIRAKOSYAN¹⁶, MAREK KIREJCZYK⁵³, ANDREY KIRYAKOV⁵², MLADEN KIŠ², IVAN KISEL¹⁰, PAVEL KISEL^{12,2,1}, SERGEY KISELEV⁹, TIVADAR KISS⁵⁴, PHILIPP KLAUS¹², RAFAL KLECZEK²², CHRISTIAN KLEIN-BÖSING²⁸, VOLKER KLEIPA², VIKTOR KLOCHKOV^{2,12}, PIOTR KMON²², KARSTEN KOCH², LEONID KOCHENDA²⁴, PIOTR KOCZON², WOLFGANG KOENIG², MARTIN KOHN²⁸, BURKHARD W. KOLB², ANASTASIA KOLOSOVA⁹, BORIS KOMKOV²⁴, MIKHAIL KOROLEV²¹, IVAN KOROLKO⁹, ROLAND KOTTE⁴⁹, OLEXXI KOVALCHUK⁴¹, SEWERYN KOWALSKI³⁶, MICHAL KOZIEL¹², GRIGORY KOZLOV^{10,1}, VLADIMIR KOZLOV²⁴, VIKTOR KRAMARENKO¹⁶, PETER KRAVTSOV²⁴, ERIK KREBS¹², CHRISTIAN KREIDL³⁵, IEVGENII KRES²⁵, DMYTRO KRESAN², GI-SA KRETSCHMAR¹², MICHAEL KRIEGER³⁵, ALEXANDR VITAL'EVICH KRYANEV^{1,18}, EVGENY KRYSHEN²⁴, WOJCIECH KUCEWICZ²², VLADYSLAV KUCHER¹⁰, LEONID KUDIN²⁴, ANDREJ KUGLER⁵⁵, IGOR KULAKOV², AJIT KUMAR⁶, JOCHEN KUNKEL², ALEXEY KUREPIN¹⁴, NIKOLAY KUREPIN¹⁴, ALEXEI KURILKIN¹⁶, PAVEL KURILKIN¹⁶, VASILYI KUSHPIL⁵⁵, SERGEY KUZNETSOV¹⁶, VOLODYMYR KYVA⁴¹, VLADIMIR LADYGIN¹⁶, CAMILO LARA³⁴, PAVEL LARIONOV^{12,2}, ALEJANDRO LASO GARCÍA^{49,64}, EVGHENY LAVRIK⁴⁶, IONEL LAZANU¹⁷, ANDREY LEBEDEV^{2,1}, SEMEN LEBEDEV^{26,1}, ELENA LEBEDEVA²⁶, JÖRG LEHNERT², JOHANNES LEHRBACH³⁴, YVONNE LEIFELS², FRANK LEMKE³⁵, CHENG LI³⁹, QIYAN LI^{12,38}, XIN LI³⁹, YUANJING LI⁴², VOLKER LINDENSTRUTH^{10,2}, BENJAMIN LINNIK¹², FENG LIU³⁸, IVAN LOBANOV⁵², ELENA LOBANOVA⁵², SVEN LÖCHNER², PIERRE-ALAIN LOIZEAU², JOSÉ ANTONIO LUCIO MARTÍNEZ³⁴, XIAOFENG LUO³⁸, ANTON LYMANETS^{2,41}, PENGFEI LYU⁴², ALLA MAEVSKAYA¹⁴, SANJAY MAHajan³⁰, DURGA PRASAD MAHAPATRA⁵⁶, TARIQ MAHMOUD²⁶, PIOTR MAJ²², ZBIGNIEW MAJKA⁴, ALEXANDER MALAKHOV¹⁶, EUGENE MALANKIN¹⁸, DMITRY MALKEVICH⁹, OLGA Malyatina¹⁸, HANNA MALYGINA^{12,2,41}, SWAGATA MANDAL⁶, VLADISLAV MANKO³³, SEBASTIAN MANZ³⁴, ANA MARIA MARIN GARCIA², JOCHEN MARKERT¹², SILVIA MASCIOCCHI², TOMASZ MATULEWICZ⁵³, LUKAS MEDER¹⁹, MIKHAIL MERKIN²¹, JOACHIM MEYER¹⁹, VLADIMIR MIALKOVSKI¹⁶, JAN MICHEL¹², NAIL MIFTAKHOV²⁴, LUKASZ MIK²², KONSTANTIN

MIKHAILOV⁹, VASILY MIKHAYLOV⁵⁵, BORISLAV MILANOVIĆ¹², VICTOR MILITSIJA⁴¹, M. FAROOQ MIR⁷, DARIUSZ MISKOWIEC², IEVGENIA MOMOT^{2,41}, THOMAS MORHARDT², SERGEY MOROZOV¹⁴, WALTER F.J. MÜLLER^{48,2}, CHRISTIAN MÜNTZ¹², YURI MURIN¹⁶, RAFAL NAJMAN⁴, CHINMOY NANDI⁶, EKATA NANDY⁶, LOTHAR NAUMANN⁴⁹, TAPAN NAYAK⁶, ALEXANDER NEDOSEKIN⁹, WOLFGANG NIEBUR², VLADIMIR NIKULIN²⁴, DMITRY NORMANOV¹⁸, ANDREI OANCEA³⁴, KUNSU OH⁵⁷, YURY ONISHCHUK²⁹, GENNADY OSOSKOV¹, PIOTR OTFINOWSKI²², EGOR OVCHARENKO^{9,1}, SUSANTA PAL⁶, IAROSLAV PANASENKO^{46,41}, NIHAR RANJAN PANDA⁵⁶, STANISLAV PARZHITSKIY¹⁶, CHRISTIAN PAULY²⁵, MANUEL PENNSCHUCK¹², DMITRI PESHEKHONOV¹⁶, VLADIMIR PESHEKHONOV¹⁶, VOJTEČH PETRÁČEK⁵⁸, MICHAEL PETRI¹², MARIANA PETRIŠ¹⁵, ALEXANDRINA PETROVICI¹⁵, MIHAI PETROVICI¹⁵, ANATOLY PETROVSKYI¹⁸, OLEG PETUKHOV¹⁴, DENNIS PFEIFER²⁵, KRZYSZTOF PIASECKI⁵³, JONATHAN PIEPER¹², JERZY PIETRASZKO², ROMAN PLANETA⁴, VASILIY PLOTNIKOV⁹, VLADIMIR PLUJKO²⁹, JAN PLUTA³⁷, AMALIA POP¹⁵, VLADIMIR POSPISIL⁵⁸, BABA POTUKUCHI³⁰, JAHAN POURYAMOUT²⁵, KRZYSZTOF POŃIAK^{37,53}, ARUN PRAKASH⁵⁵, MIKHAIL PROKUDIN⁹, IGOR PSHENICHNOV¹⁴, MYKHAILO PUGACH^{10,2,41}, VALERY PUGATCH⁴¹, SVEN QUERCHFELD²⁵, SERGEY RABTSUN¹⁶, LAURA RADULESCU¹⁵, SIBAJI RAHA³, WASEEM RAJA⁷, FOUD RAMI⁴³, RASHMI RANIWALA⁵⁹, SUDHIR RANIWALA⁵⁹, ANATOLY RAPORTIRENKO¹, JULIAN RAUTENBERG²⁵, JACEK RAUZA²², RAJARSHI RAY³, STEPHAN RAZIN¹⁶, PATRICK REICHELT¹², SASCHA REINECKE²⁵, ALEXANDER REINEFELD⁶⁰, ANDREY RESHETIN¹⁴, CATALIN RISTEA¹⁷, OANA RISTEA¹⁷, ADRIAN RODRIGUEZ RODRIGUEZ², FLORIAN ROETHER¹², RYSZARD ROMANIUK³⁷, ADRIAN ROST⁵¹, EVGENY ROSTCHIN²⁴, IRINA ROSTOVTEVA⁹, AMITAVA ROY⁶, JACEK ROZYNEK⁵³, YURY RYABOV²⁴, ALEXANDER SADOVSKY¹⁴, RAGHUNATH SAHOO⁶¹, PRADIP KUMAR SAHU⁵⁶, SANJIB KUMAR SAHU⁵⁶, JOGENDER SAINI⁶, SUBHASIS SAMANTA³, SANJEEV SINGH SAMBYAL³⁰, VLADIMIR SAMONOV^{24,18,27}, JORGE SÁNCHEZ ROSADÓ², OLIVER SANDER¹⁹, SATNUNI SARANGI³², TADEUSZ SATLAWA²², SUMAN SAU²⁰, VALERI SAVELIEV⁴⁵, SVEN SCHATRAL^{2,35}, CLAUDIO SCHIAUA¹⁵, FLORIAN SCHINTKE⁶⁰, CHRISTIAN JOACHIM SCHMIDT², HANS RUDOLF SCHMIDT⁴⁶, KATARZYNA SCHMIDT³⁶, JOHANNES SCHOLTEN¹², KAI SCHWEDA², FLORIAN SECK⁵¹, SÉLIM SEDDIKI², ILYA SELYZHENKOV², ALEXANDER SEMENNIKOV⁹, ANNA SENGER², PETER SENGER^{2,12}, ARSENIY SHABANOV¹⁴, ALEXEY SHABUNOV¹⁶, MING SHAO³⁹, ALEXEY D. SHEREMETIEV¹⁶, SHUSHU SHI³⁸, NIKOLAI SHUMEIKO¹⁶, VITALY SHUMIKHIN¹⁸, IOURI SIBIRYAK³³, BRUNNON SIKORA⁵³, ANDREW SIMAKOV¹⁸, CHRISTIAN SIMON¹¹, CARMEN SIMONS², RAMA NARAYANA SINGARAJU⁶, AJAY KUMAR SINGH³², BHARTENDU KUMAR SINGH⁴⁰, CHANDRA PRAKASH SINGH⁴⁰, VIKAS SINGHAL⁶, MINNI SINGLA², PHILIPP SITZMANN¹², KRYSTYNA SIWEK-WILCZYŃSKA⁵³, LIBOR ŠKODA⁵⁸, IZABELA SKWIRACHALOT⁵³, INDRANIL SOM³², GUOFENG SONG³⁹, JIHYE SONG⁵⁷, IURII SOROKIN^{2,41}, ZBIGNIEW SOSIN⁴, DANIEL SOYK², PAWEŁ STASZEL⁴, MICHAEL STRIKHANOV¹⁸, STEFAN STROHAUER¹², JOACHIM STROTH^{12,2}, CHRISTIAN STURM², RISHAT SULTANOV⁹, YONGJIE SUN³⁹, DMITRY SVRIDA⁹, ONDŘEJ SVOBODA⁵⁵, ATTILA SZABÓ⁴⁴, ROBERT SZCZYGIEL²², RUPALIM TALUKDAR³¹, ZEBO TANG³⁹, MILAD TANHA¹², JERZY TARASIUK⁵³, OLGA TARASSENKOVA²⁴, MADALINA-GABRIELA TÁRZILA¹⁵, MAXIM TEKLISHYN^{48,41}, TOBIAS TISCHLER¹², PAVEL TLUSTÝ⁵⁵, TAMÁS TÖLYHI⁵⁴, ALBERICA TOIA^{2,12}, NATALIYA TOPIL'SKAYA¹⁴, MICHAEL TRÄGER², SUSHANTA TRIPATHY⁶¹, IVAN TSAKOV¹⁶, YURI TSYUPA⁵², ADAM TUROWIECKI⁵³, NICOLAE GEORGE TUTURAS¹⁷, FLORIAN UHLIG², EVGUENI USENKO¹⁴, ISABELLE VALIN⁴³, DEZSÖ VARGA⁵⁴, IOURI VASSILIEV², OLEG VASYLYEV², ELENA VERBITSKAYA⁴⁷, WOLFGANG VERHOEVEN²⁸, ANDREW VESHIKOV²³, ROBERT VISINKA², YOGENDRA PATHAK VIYOGI⁶, SERGEI VOLKOV²⁴, ANDRII VOLOCHNIUK²⁹, ALEXANDER VOROBIEV⁵², ALEKSEY VORONIN¹⁶, ALEXANDER VORONIN²¹, VOLODYMYR VOVCHENKO¹⁰, MARAT VZNUZDAEV²⁴, DONG WANG³⁸, XI-WEI WANG⁵⁰, YAPING WANG³⁸, YI WANG⁴², MARC WEBER¹⁹, CHRISTIAN WENDISCH², JOHANNES P. WESSELS²⁸, MICHAEL WIEBUSCH¹², JENS WIECHULA⁴⁶, DANIEL WIELANEK³⁷, ANDRZEJ WIEŁOCH⁴, NICOLAS WINCKLER², MARC WINTER⁴³, KRZYSZTOF WIŚNIEWSKI⁵³, GYÖRGY WOLF⁵⁴, SANGUK WON⁵⁷, KE-JUN WU⁵⁰, JÖRN WÜSTENFELD⁴⁹, CHANGZHOU XIANG³⁸, NU XU³⁸, JUN-FENG YANG^{2,39}, RONGXING YANG³⁹, ZHONGBAO YIN³⁸, IN-KWON YOO⁵⁷, BEKHZOD YULDASHEV¹⁶, IGOR YUSHMANOV³³, WOJCIECH ZABOLOTNY^{37,53}, YURI ZAITSEV⁹, NIKOLAY I. ZAMIATIN¹⁶, YURI ZANEVSKY¹⁶, MICHAEL ZHALOV²⁴, YIFEI ZHANG³⁹, LEI ZHAO³⁹, JIAJUN ZHENG³⁹, SHENG ZHENG⁵⁰, DAICUI ZHOU³⁸, JING ZHOU⁵⁰, XIANGLEI ZHU⁴², ALEXANDER ZINCHENKO¹⁶, WIKTOR ZIPPER³⁶, Mi-

ROSLAW ZOLADŹ²², PETR ZRELOV¹, VLADISLAV ZRYUEV¹⁶, PETER ZUMBRUCH² und MAKSYM ZYZAK² — ¹Laboratory of Information Technologies, Joint Institute for Nuclear Research (JINR-LIT), Dubna, Russia — ²GSI Helmholtzzentrum für Schwerionenforschung GmbH (GSI), Darmstadt, Germany — ³Department of Physics, Bose Institute, Kolkata, India — ⁴Marian Smoluchowski Institute of Physics, Jagiellonian University, Kraków, Poland — ⁵Department of Physics, Panjab University, Chandigarh, India — ⁶Variable Energy Cyclotron Centre (VECC), Kolkata, India — ⁷Department of Physics, University of Kashmir, Srinagar, India — ⁸Department of Physics, Aligarh Muslim University, Aligarh, India — ⁹Institute for Theoretical and Experimental Physics (ITEP), Moscow, Russia — ¹⁰Frankfurt Institute for Advanced Studies, Goethe-Universität Frankfurt (FIAS), Frankfurt, Germany — ¹¹Physikalisches Institut, Universität Heidelberg, Heidelberg, Germany — ¹²Institut für Kernphysik, Goethe-Universität Frankfurt, Frankfurt, Germany — ¹³University of Split, Split, Croatia — ¹⁴Institute for Nuclear Research (INR), Moscow, Russia — ¹⁵Horia Hulubei National Institute of Physics and Nuclear Engineering (IFIN-HH), Bucharest, Romania — ¹⁶Veksler and Baldin Laboratory of High Energy Physics, Joint Institute for Nuclear Research (JINR-VBLHEP), Dubna, Russia — ¹⁷Atomic and Nuclear Physics Department, University of Bucharest, Bucharest, Romania — ¹⁸National Research Nuclear University MEPhI, Moscow, Russia — ¹⁹Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany — ²⁰Department of Physics and Department of Electronic Science, University of Calcutta, Kolkata, India — ²¹Skobeltsyn Institute of Nuclear Physics, Lomonosov Moscow State University (SINP-MSU), Moscow, Russia — ²²AGH University of Science and Technology (AGH), Kraków, Poland — ²³V.G. Khlopin Radium Institute (KRI), St. Petersburg, Russia — ²⁴National Research Center "Kurchatov Institute" B.P.Konstantinov, Petersburg Nuclear Physics Institute (PNPI), Gatchina, Russia — ²⁵Fakultät für Mathematik und Naturwissenschaften, Bergische Universität Wuppertal, Wuppertal, Germany — ²⁶Justus-Liebig-Universität Giessen, Giessen, Germany — ²⁷St. Petersburg Polytechnic University (SPbPU), St. Petersburg, Russia — ²⁸Institut für Kernphysik, Westfälische Wilhelms-Universität Münster, Münster, Germany — ²⁹Department of Nuclear Physics, Taras Shevchenko National University of Kyiv, Kyiv, Ukraine — ³⁰Department of Physics, University of Jammu, Jammu, India — ³¹Department of Physics, Gauhati University, Guwahati, India — ³²Indian Institute of Technology Kharagpur, Kharagpur, India — ³³National Research Centre "Kurchatov Institute", Moscow, Russia — ³⁴Institute for Computer Science, Goethe-Universität Frankfurt, Frankfurt, Germany — ³⁵Institut für Technische Informatik, Universität Heidelberg, Mannheim, Germany — ³⁶Institute of Physics, University of Silesia, Katowice, Poland — ³⁷Institute of Electronic Systems, Warsaw University of Technology, Warsaw, Poland — ³⁸College of Physical Science and Technology, Central China Normal University (CCNU), Wuhan, China — ³⁹Department of Modern Physics, University of Science & Technology of China (USTC), Hefei, China — ⁴⁰Department of Physics, Banaras Hindu University, Varanasi, India — ⁴¹High Energy Physics Department, Kiev Institute for Nuclear Research (KINR), Kyiv, Ukraine — ⁴²Department of Engineering Physics, Tsinghua University, Beijing, China — ⁴³Institut Pluridisciplinaire Hubert Curien (IPHC), IN2P3-CNRS and Université de Strasbourg, Strasbourg, France — ⁴⁴Eötvös Loránd University (ELTE), Budapest, Hungary — ⁴⁵National Research Nuclear University, Obninsk, Russia — ⁴⁶Physikalisches Institut, Eberhard Karls Universität Tübingen, Tübingen, Germany — ⁴⁷Ioffe Institute, Russian Academy of Sciences, St. Petersburg, Russia — ⁴⁸Facility for Antiproton and Ion Research in Europe GmbH (FAIR), Darmstadt, Germany — ⁴⁹Institut für Strahlenphysik, Helmholtz-Zentrum Dresden-Rossendorf (HZDR), Dresden, Germany — ⁵⁰College of Science, China Three Gorges University (CTGU), Yichang, China — ⁵¹Institut für Kernphysik, Technische Universität Darmstadt, Darmstadt, Germany — ⁵²Institute for High Energy Physics (IHEP), Protvino, Russia — ⁵³Institute of Experimental Physics, University of Warsaw, Warsaw, Poland — ⁵⁴Institute for Particle and Nuclear Physics, Wigner Research Centre for Physics, Hungarian Academy of Sciences, Budapest, Hungary — ⁵⁵Nuclear Physics Institute of the Czech Academy of Sciences, Řež, Czech Republic — ⁵⁶Institute of Physics, Bhubaneswar, India — ⁵⁷Pusan National University (PNU), Pusan, Korea — ⁵⁸Czech Technical University (CTU), Prague, Czech Republic — ⁵⁹Physics Department, University of Rajasthan, Jaipur, India — ⁶⁰Konrad-Zuse-Zentrum für Informationstechnik Berlin (ZIB), Berlin, Germany — ⁶¹Indian Institute of Technology Indore, Indore, India — ⁶²also: King Abdulaziz City for Science and Technology (KACST), Riyadh, Saudi Arabia — ⁶³also:

Institute of Space Science, Bucharest, Romania — ⁶⁴also: Technische Universität Dresden, Dresden, Germany

Koll 11: CBM-MVD-Kollaboration

SAMIR AMAR-YOUCEF¹, JÉRÔME BAUDOT², GRÉGORY BERTOLONE², NORBERT BIALAS¹, TOBIAS BUS¹, GILLES CLAUS², CLAUDE COLLEDANI², MICHAEL DEVEAUX¹, DENNIS DOERING¹, ANDREI DOROKHOV², INGO FRÖHLICH¹, MATHIEU GOFFE², ABDELKADER HIMMI², CHRISTINE HU-GUO², KIMMO JAASKELAINEN², PHILIPP KLAUS¹, MICHAL KOZIEL¹, ERIK KREBS¹, GISA KRETZSCHMAR¹, QIYAN LI¹, BENJAMIN LINNIK¹, JOCHEN MARKERT³, JAN MICHEL¹, BORISLAV MILANOVIC¹, FRÉDÉRIC MOREL², CHRISTIAN MÜNTZ¹, ALEJANDRO PEREZ², MICHAEL PETRI¹, HUNG PHAM², STEFAN SCHREIBER¹, PHILIPP SITZMANN¹, MATHIEU SPECHT², JOACHIM STROTH¹, TOBIAS TISCHLER¹, ISABELLE VALIN², ROLAND WEIRICH¹, MICHAEL WIEBUSCH¹ und MARC WINTER² — ¹Goethe-Universität, Frankfurt — ²Institut Pluridisciplinaire Hubert Curien (IPHC), Strasbourg, France — ³GSI Helmholtzzentrum für Schwerionenforschung, Darmstadt

Koll 12: COBRA-Kollaboration

JAN-HENDRIK ARLING¹, MARCEL GERHARDT¹, CLAUS GÖSSLING¹, REINER KLINGENBERG¹, KEVIN KRÖNINGER¹, CHRISTIAN NITSCH¹, THOMAS QUANTE¹, SILKE RAJEK^{1,5}, JAN TEBRÜGGE¹, ROBERT TEMMINGHOFF¹, ROBERT THEINERT¹, DANIEL GEHRE², STEPHAN PLATZEK², KATJA ROHATSCH², STEFAN ZATSCHLER², KAI ZUBER², JOACHIM EBERT³, CAREN HAGNER³, NADINE HEIDRICH³, CHRISTIAN OLDORF³, HENNING REBER³, JAN TIMM³, BJÖRN WONSAK³, THILO MICHEL⁴ und GISELA ANTON⁴ — ¹TU Dortmund, Experimentelle Physik IV, 44221 Dortmund, D — ²TU Dresden, Institut für Kern- und Teilchenphysik, 01069 Dresden, D — ³Universität Hamburg, Institut für Experimentalphysik, 22761 Hamburg, D — ⁴Universität Erlangen-Nürnberg, ECAP, 91058 Erlangen, D — ⁵Samco-Technik, Schwerte, D

Koll 13: COLLAPS-Kollaboration

MARK BISSEL¹, KLAUS BLAUM², STEPHAN MALBRUNOT-ETTENAUER³, RONALD GARCIA RUIZ³, WOUTER GINS⁴, CHRISTIAN GORGES⁵, HANNE HEYLEN⁴, SIMON KAUFMANN⁵, KRISTIAN KÖNIG⁵, MAGDALENA KOWALSKA³, JÖRG KRÄMER⁵, PETER LIEVENS⁶, RAINER NEUGART^{2,7}, GERDA NEYENS⁴, WILFRIED NÖRTERSHÄUSER⁵, LAURA WEHNER^{3,7}, XIAOFEI YANG⁴ und DEYAN YORDANOV⁸ — ¹School of Physics and Astronomy, The University of Manchester, Manchester, UK — ²Max-Plank-Institut für Kernphysik, Heidelberg, Germany — ³Physics Department, CERN, Geneva, Switzerland — ⁴KU Leuven, Instituut voor Kern- en Stralingsfysica, Leuven, Belgium — ⁵Institut für Kernphysik, TU Darmstadt, Darmstadt, Germany — ⁶Laboratory of Solid State Physics and Magnetism, KU Leuven, Leuven, Belgium — ⁷Institut für Kernchemie, Universität Mainz, Mainz, Germany — ⁸Institut de Physique Nucléaire Orsay, IN2P3/CNRS, Orsay Cedex, France

Koll 14: Cologne-LNL-Kollaboration

JULIA LITZINGER¹, ANDREY BLAZHEV¹, ALFRED DEWALD¹, CHRISTOPH FRANSEN¹, FRANCOIS DIDIERJEAN², GILBERT DUCHENE², RADOMIRA LOZEGA², KAMILA SIEJA², DAVID VERNEY³, GIACOMO DE ANGELIS⁴, DINO BAZZACCO⁵, BENEDIKT BIRKENBACH¹, SILVIA BOTTONI⁶, ANGELA BRACCO⁶, THOMAS BRAUNROTH¹, BO CEDERWALL⁷, LORENZO CORRADI⁴, F.C.L. CRESPI⁶, P. DESESQUELLES⁸, JURGEN EBERTH¹, ENRICO ELLINGER¹, ENRICO FARNEA⁵, ENRICO FIORETTI⁴, ROMAN GERNHÄUSER⁹, ALAIN GOASDUFF², ANDREAS GÖRGEN¹⁰, ANDREA GOTTALEO³, JERZY GREBOSZ¹¹, MATTHIAS HACKSTEIN¹, HERBERT HESS¹, FAIDI IBRAHIM³, JAN JOLIE¹, ANDREA JUNGCLAUS¹², KAROLINA KOLOS³, WOLFGANG KORTEN¹⁰, SILVIA LEONI⁶, SANTO LUNARDI⁵, A. MAJ¹¹, ROBERTO MENEGAZZO¹³, DANIELE MENGONI¹⁴, CATARINA MICHELAGNOLI⁵, TEA MIJATOVIC¹⁵, B. MILLION¹⁶, OLIVER MÖLLER¹⁷, VICTOR MODAMIO⁴, GIOVANNA MONTAGNOLI⁵, DANIELE MONTANARI⁵, ANNABELLE MORALES⁶, DANIEL NAPOLI⁴, MEGUMI NIUKURA³, GIOVANNI POLLAROLO¹⁸, ANTONIO PULLIA⁶, B. QUINTANA¹⁹, FRANCESCO RECCHIA⁵, PETER REITER¹, D. ROSSO⁴, EDÁ SAHIN⁴, M.D. SALSA¹⁰, FERNANDO SCARLASSARA⁵, PÄR-ANDERS SÖDERSTRÖM²⁰, ALBERTO M. STEFANINI⁴, OLIVER STEZOWSKI²¹, SUZANA SZILNER¹⁵, CHRISTOPHE THEISEN¹⁰, JOSE JAVIER VALIENTE DOBON⁴, VALERIA VANDONE⁶ und ANDREAS VOGL¹ — ¹Institut für Kernphysik, Universität zu Köln, 50937 Köln, Germany — ²Université de Strasbourg, IPHC, and CNRS, F-67037 Strasbourg, France — ³Institut de Physique Nucléaire, CNRS/IN2P3 and

Université Paris Sud, F-91405 Orsay, France — ⁴Istituto Nazionale di Fisica Nucleare, Laboratori Nazionali di Legnaro, I-35020 Legnaro, Italy — ⁵Istituto Nazionale di Fisica Nucleare, Sezione di Padova and Università di Padova, I-35131 Padova, Italy — ⁶Dipartimento di Fisica, Università di Milano and INFN, Sezione di Milano, I-20133 Milano, Italy — ⁷Department of Physics, Royal Institute of Technology, Se-10691-Stockholm, Sweden — ⁸Centre de Spectrométrie Nucléaire et de Spectrométrie de Masse CSNSM, CNRS/IN2P3 and Université Paris-Sud, F-91405 Orsay Campus, France — ⁹Physics Department E12, Technische Universität München, 85748 Garching, Germany — ¹⁰Institut de Recherche sur les lois Fondamentales de l'Univers- IRFU, CEA/DSM, Centre CEA de Saclay, F-91191 Gif-sur-Yvette Cedex, France — ¹¹The Henry Niewodniczański Institute of Nuclear Physics, Polish Academy of Sciences, ul. Radzikowskiego 152, 31-342 Kraków, Poland — ¹²Instituto de Estructura de la Materia, CSIC, Madrid, E-28006 Madrid, Spain — ¹³Istituto Nazionale di Fisica Nucleare, Sezione di Padova, I-35131 Padova, Italy — ¹⁴Nuclear Physics Research Group, University of the West of Scotland, High Street, Paisley, PA1 2Be, Scotland, UK — ¹⁵Ruder Bošković Institute, HR-10002 Zagreb, Croatia — ¹⁶Istituto Nazionale di Fisica Nucleare, Sezione di Milano, I-20133 Milano, Italy — ¹⁷Institut für Kernphysik, Technische Universität Darmstadt, 64289 Darmstadt, Germany — ¹⁸Dipartimento di Fisica Teorica dell' Università di Torino and INFN, I-10125 Torino, Italy — ¹⁹Laboratorio de Radiaciones Ionizantes, Universidad de Salamanca, E-37008 Salamanca, Spain — ²⁰Department of Physics and Astronomy, Uppsala University, SE-75120 Uppsala, Sweden — ²¹Université de Lyon, Université Lyon-1, IN2P3/CNRS, F-69622 Villeurbanne Cedex, France

Koll 15: DALI-LaBr RIBF-Collaboration-Kollaboration

THOMAS AUMANN¹, RICCARDO AVIGO^{3,4}, HITEDA BABA², KONSTANZE BORETZKY⁵, ANGELA BRACCO^{3,4}, CHRISTOPH CAESAR⁵, FRANCO CAMERA^{3,4}, SIDONG CHEN^{2,6}, VERA DERYA⁷, PIETER DOORNEBAL², JANIS ENDRES⁷, NAOKI FUKUDA², UMESH GARG⁸, AGNESE GIAZ^{3,4}, MUHSIN HARAKEH⁹, MICHAEL HEIL⁵, ANDREA HORVAT¹, KAZUO IEKI¹⁰, NOBUAKI IMAI¹¹, NAOHITO INABE², NASSER KALANTAR-NAYESTANAKI⁹, NOBUYUKI KOBAYASHI¹¹, YOSUKE KONDO¹², SHUNPEI KOYAMA¹¹, TOSHIYUKI KUBO², ISMAEL MARTEL¹³, MASAFUMI MATSUSHITA⁹, BENEDICTE MILLION¹⁴, TOHRU MOTOBAYASHI², TAKASHI NAKAMURA¹², NORI NAKATSUKA^{2,15}, MIZUKI NISHIMURA², SHUNJI NISHIMURA², SHINSUKE OTA⁹, HIDEAKI OTSU², TOMOYUKI OZAKI¹², MARINA PETRI¹, RENE REIFARTH¹⁶, DOMINIC ROSSI¹, ATSUMI SAITO¹², HIROYOSHI SAKURAI^{2,11}, DENIZ SAVRAN⁵, HEIKO SCHEIT¹, FABIA SCHINDLER¹, PHILIPP SCHROCK¹¹, DIEGO SEMMLER¹, YOSHIAKI SHIGA^{2,10}, MIZUKI SHIKATA¹², YOHEI SHIMIZU², HAIK SIMON⁵, DAVID STEPPENBECK², HIROSHI SUZUKI², TOSHIYUKI SUMIKAMA¹⁷, DMYOTRO SYMOCHKO¹, INA SYNDIKUS¹, HIROYUKI TAKEDA², SATOSHI TAKEUCHI², RYO TANUCHI¹¹, YASUHIRO TOGANO¹², JOACHIM TSCHUESCHNER¹, JYUNICHI TSUBOTA¹², HE WANG², OLIVER WIELAND³, KEN-ICHIRO YONEDA², JUZO ZENIHIRO² und ANDREAS ZILGES⁷ — ¹Technische Universität Darmstadt, Darmstadt, Germany — ²RIKEN Nishina Center, Wako, Japan — ³INFN sezione di Milano, Milan, Italy — ⁴Università degli studi di Milano, Milan, Italy — ⁵GSI Helmholtzzentrum Darmstadt, Darmstadt, Germany — ⁶Peking University, Peking, China — ⁷Universität zu Köln, Köln, Germany — ⁸University of Notre Dame, Notre Dame, USA — ⁹KVI-CART Groningen, Groningen — ¹⁰Rikkyo University, Japan — ¹¹University of Tokyo — ¹²Tokyo Institute of Technology — ¹³Universidad de Huelva — ¹⁴VECC India — ¹⁵Kyoto University — ¹⁶Goethe University Frankfurt, Frankfurt, Germany — ¹⁷Tohoku University

Koll 16: Double Chooz-Kollaboration

Y. ABE²⁷, T. ABRAHÃO⁵, H. ALMAZAN²⁰, C. ALT¹, J.C. DOS ANJOS⁵, J.C. BARRIERE¹⁴, E. BAUSSAN²², I. BEKMAN¹, M. BERGEVIN⁹, T.J.C. BEZERRA²⁵, L. BEZRUKOV¹³, E. BLUCHER⁶, T. BRUGIÈRE²², C. BUCK²⁰, J. BUSENITZ², A. CABRERA⁴, L. CAMILLERI⁸, R. CARR⁸, M. CERRADA⁷, E. CHAUVEAU²⁵, P. CHIMENTI³¹, A.P. COLLIN²⁰, J.M. CONRAD¹⁹, J.I. CRESPO-ANADÓN⁷, K. CRUM⁶, A.S. CUOCANES²³, E. DAMON¹⁰, J.V. DAWSON⁴, J. DHOOGHE⁹, D. DIETRICH³⁰, Z. DJURCIC³, M. DRACOS²², A. ETENKO¹⁸, M. FALLOT²³, F. VON FEILITZSCH²⁹, J. FELDE^{9,34}, S.M. FERNANDES², V. FISCHER¹⁴, D. FRANCO⁴, M. FRANKE²⁹, H. FURUTA²⁵, I. GIL-BOTELLA⁷, L. GIOT²³, M. GÖGER-NEFF²⁹, H. GOMEZ⁴, L.F.G. GONZALEZ³², L. GOODENOUGH³, M.C. GOODMAN³, N. HAAG²⁹, T. HARA¹⁷, J. HASER²⁰, D. HELLWIG¹, M. HOFMANN²⁹, G.A. HORTON-SMITH¹⁵, A. HOURLIER⁴, M. ISHITSUKA²⁷, J. JOCHUM³⁰, C. JOLLET²², F. KAETHER²⁰, L.N.

KALOUSIS³³, Y. KAMYSHKOV²⁴, M. KANEDA²⁷, D.M. KAPLAN¹², T. KAWASAKI¹⁶, E. KEMP³², H. DE KERRET⁴, D. KRYN⁴, M. KUZE²⁷, T. LACHENMAIER³⁰, C.E. LANE¹⁰, T. LASSEUR^{14,4}, A. LETOURNEAU¹⁴, D. LHUILLIER¹⁴, H.P. LIMA JR⁵, M. LINDNER²⁰, J.M. LÓPEZ-CASTAÑO⁷, J.M. LOSECCO²¹, B. LUBSANDORZHIEV¹³, S. LUCHT¹, J. MAEDA^{28,35}, C. MARIANI³³, J. MARICIC^{10,36}, J. MARTINO²³, T. MATSUBARA²⁸, G. MENTION¹⁴, A. MEREAGLIA²², T. MILETIC¹⁰, R. MILINCIC^{10,36}, A. MINOTTI²², Y. NAGASAKA¹¹, D. NAVAS-NICOLÁS⁷, P. NOVELLA^{7,37}, L. OBERAUER²⁹, M. OBOLENSKY⁴, A. ONILLON⁴, A. OSBORN²⁴, C. PALOMARES⁷, I.M. PEPE⁵, S. PERASSO⁴, A. PORTA²³, G. PRONOST²³, J. REICHENBACHER², B. REINHOLD^{20,36}, M. RÖHLING³⁰, R. RONCIN⁴, B. RYBOLT²⁴, Y. SAKAMOTO²⁶, R. SANTORELLI⁷, A.C. SCHILITHZ⁵, S. SCHÖNERT²⁹, S. SCHOPPMANN¹, M.H. SHAEVITZ⁸, R. SHARANKOVA²⁷, D. SHRESTHA¹⁵, V. SIBILLE¹⁴, V. SINEV¹³, M. SKOROKHVATOV¹⁸, E. SMITH¹⁰, M. SOIRON¹, J. SPITZ¹⁹, A. STAHL¹, I. STANCU², L.F.F. STOKES³⁰, M. STRAIT⁶, F. SUEKANE²⁵, S. SUKHOTIN¹⁸, T. SUMIYOSHI²⁸, Y. SUN^{2,36}, R. SVOBODA⁹, K. TERAO¹⁹, A. TONAZZO⁴, H.H. TRINH THI²⁹, G. VALDIVIESO⁵, N. VASSILOPOULOS²², C. VEYSSIERE¹⁴, M. VIVIER¹⁴, S. WAGNER⁵, N. WALSH⁹, H. WATANABE²⁰, C. WIEBUSCH¹, M. WURM^{30,38}, G. YANG^{3,12}, F. YERMIA²³ und V. ZIMMER²⁹ — ¹III. Physikalisches Institut, RWTH Aachen University, 52056 Aachen, Germany — ²Department of Physics and Astronomy, University of Alabama, Tuscaloosa, Alabama 35487, USA — ³Argonne National Laboratory, Argonne, Illinois 60439, USA — ⁴AstroParticule et Cosmologie, Université Paris Diderot, CNRS/IN2P3, CEA/IRFU, Observatoire de Paris, Sorbonne Paris Cité, 75205 Paris Cedex 13, France — ⁵Centro Brasileiro de Pesquisas Físicas, Rio de Janeiro, RJ, 22290-180, Brazil — ⁶The Enrico Fermi Institute, The University of Chicago, Chicago, Illinois 60637, USA — ⁷Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, CIEMAT, 28040, Madrid, Spain — ⁸Columbia University; New York, New York 10027, USA — ⁹University of California, Davis, California 95616, USA — ¹⁰Department of Physics, Drexel University, Philadelphia, Pennsylvania 19104, USA — ¹¹Hiroshima Institute of Technology, Hiroshima, 731-5193, Japan — ¹²Department of Physics, Illinois Institute of Technology, Chicago, Illinois 60616, USA — ¹³Institute of Nuclear Research of the Russian Academy of Sciences, Moscow 117312, Russia — ¹⁴Commissariat à l'Energie Atomique et aux Energies Alternatives, Centre de Saclay, IRFU, 91191 Gif-sur-Yvette, France — ¹⁵Department of Physics, Kansas State University, Manhattan, Kansas 66506, USA — ¹⁶Department of Physics, Kitasato University, Sagamihara, 252-0373, Japan — ¹⁷Department of Physics, Kobe University, Kobe, 657-8501, Japan — ¹⁸NRC Kurchatov Institute, 123182 Moscow, Russia — ¹⁹Massachusetts Institute of Technology, Cambridge, Massachusetts 02139, USA — ²⁰Max-Planck-Institut für Kernphysik, 69117 Heidelberg, Germany — ²¹University of Notre Dame, Notre Dame, Indiana 46556, USA — ²²IPHC, Université de Strasbourg, CNRS/IN2P3, 67037 Strasbourg, France — ²³SUBATECH, CNRS/IN2P3, Université de Nantes, Ecole des Mines de Nantes, 44307 Nantes, France — ²⁴Department of Physics and Astronomy, University of Tennessee, Knoxville, Tennessee 37996, USA — ²⁵Research Center for Neutrino Science, Tohoku University, Sendai 980-8578, Japan — ²⁶Tohoku Gakuin University, Sendai, 981-3193, Japan — ²⁷Department of Physics, Tokyo Institute of Technology, Tokyo, 152-8551, Japan — ²⁸Department of Physics, Tokyo Metropolitan University, Tokyo, 192-0397, Japan — ²⁹Physik Department, Technische Universität München, 85748 Garching, Germany — ³⁰Kepler Center for Astro and Particle Physics, Universität Tübingen, 72076 Tübingen, Germany — ³¹Universidade Federal do ABC, UFABC, Santo André, SP, 09210-580, Brazil — ³²Universidade Estadual de Campinas-UNICAMP, Campinas, SP, 13083-970, Brazil — ³³Center for Neutrino Physics, Virginia Tech, Blacksburg, Virginia 24061, USA — ³⁴Now at Department of Physics, University of Maryland, College Park, Maryland 20742, USA. — ³⁵Now at Department of Physics, Kobe University, Kobe, 657-8501, Japan — ³⁶Now at Department of Physics & Astronomy, University of Hawaii at Manoa, Honolulu, Hawaii 96822, USA. — ³⁷Now at Instituto de Física Corpuscular, IFIC (CSIC/UV), 46980 Paterna, Spain. — ³⁸Now at Institut für Physik and Excellence Cluster PRISMA, Johannes Gutenberg-Universität Mainz, 55128 Mainz, Germany.

Koll 17: ECHo-Kollaboration

K. BLAUM², T. DAY GOODACRE⁷, H. DORRER³, CH. E. DÜLLMANN³, K. EBERHARDT³, S. ELISEEV², C. ENSS¹, P. FILIANIN², A. FÄSSLER⁶, C. FISCHER¹, A. FLEISCHMANN¹, D. FONNESU¹, L. GASTALDO¹, M. GANCHAROV², C. HASSEL¹, D. HENGSTLER¹, J. JOCHUM¹², K. JOHNSTON⁷, M. KELLER¹, S. KEMPF¹, T. KIECK⁵, U. KÖSTER¹³,

M. KRANTZ¹, B. MARSH⁷, C. MOKRY³, YU. N. NOVIKOV⁹, P. C. O. RANITZSCH¹⁵, S. ROTHE⁷, A. RISCHKA², J. RUNKE³, A. SAENZ¹⁴, F. SCHNEIDER³, S. SCHOLL¹², R. X. SCHÜSSLER², F. SIMKOVIC¹⁰, T. STORA⁷, P. THÖRLE-POSPIECH³, A. TÜRLER⁸, M. VEINHARDT⁷, M. WEGNER¹, K. WENDT⁴ und K. ZUBER¹¹ — ¹Kirchhoff Institute for Physics, Heidelberg University, INF 227 D-69120 Heidelberg, Germany — ²Max-Planck Institute for Nuclear Physics, Heidelberg, Germany — ³Institute for Nuclear Chemistry, Johannes Gutenberg University, Mainz, Germany — ⁴Institute for Physics, Johannes Gutenberg University, Mainz, Germany — ⁵Institute for Physics – Institute for Nuclear Chemistry, Johannes Gutenberg University, Mainz, Germany — ⁶Institute for Theoretical Physics, University of Tübingen, Tübingen, Germany — ⁷ISOLDE, CERN, Geneve, Switzerland/France — ⁸Paul Scherrer Institute, Laboratory for Radiochemistry and Environmental Chemistry, Villigen, Switzerland — ⁹Petersburg Nuclear Physics Institute, Gatchina, Russia — Max-Planck Institute for Nuclear Physics, Heidelberg, Germany — ¹⁰Department of Nuclear Physics and Biophysics, Comenius University, Bratislava, Slovakia — ¹¹Institute for Nuclear and Particle Physics, TU Dresden, Germany — ¹²Physics Institute, University of Tübingen, Germany — ¹³Institut Laue-Langevin, Grenoble, France — ¹⁴Institute for Physics, Humboldt-University Berlin, Berlin, Germany — ¹⁵Institute for Nuclear Physics, Muenster University, Wilhelm-Klemm-Str. 9, D-48149 Münster, Germany

Koll 18: EDELWEISS-Kollaboration

E. ARMEGAUD¹, Q. ARNAUD², C. AUGIER², A. BENOÎT³, T. BERGMANN⁴, L. BERGÉ⁵, J. BILLARD², J. BLÜMER^{6,7}, T. DE BOISSIÈRE¹, G. BRES³, A. BRONIATOWSKI^{5,6}, V. BRUDANIN⁸, P. CAMUS³, A. CAZES², M. CHAPELLIER⁵, F. CHARLIEUX², A.-A. DRILLIEN⁵, L. DUMOULIN⁵, K. EITEL⁷, D. FILOSOFOV⁸, N. FOERSTER⁶, N. FOURCHES¹, G. GARDE³, J. GASCON², G. GERBIER¹, A. GIULIANI⁵, M. GROLLIER³, M. GROS¹, L. HEHN⁷, S. HERVÉ¹, G. HEUERMANN⁶, V. HUMBERT⁵, S. JOKISCH⁷, A. JUILLARD², M. DE JÉSUS², M. KLEIFGES⁴, V. KOZLOV⁷, H. KRAUS⁹, V. KUDRYAVTSEV¹⁰, C. KÉFÉLIAN^{2,6}, H. LE-SUEUR⁵, J. LIN⁹, S. MARNIEROS⁵, A. MENSHKOV⁴, X.-F. NAVICK¹, C. NONES¹, E. OLIVIERI⁵, P. PARI¹¹, B. PAUL¹, M.-C. PIRO⁵, M. ROBINSON¹⁰, H. RODENAS³, S. ROZOV⁸, V. SANGLARD², B. SCHMIDT⁷, S. SCORZA⁶, B. SIEBENBORN⁷, D. TCHERNIAKHOVSKI⁴, L. VAGNERON², M. WEBER⁴, E. YAKUSHEV⁸ und X. ZHANG⁹ — ¹CEA Saclay, DSM/IRFU, 91191 Gif-sur-Yvette Cedex, France — ²Institut de Physique Nucléaire de Lyon-UCBL, IN2P3-CNRS, 4 rue Enrico Fermi, 69622 Villeurbanne Cedex, France — ³Institut Néel, CNRS/UJF, 25 rue des Martyrs, BP 166, 38042 Grenoble, France — ⁴Karlsruher Institut für Technologie, Institut für Prozessdatenverarbeitung und Elektronik, Postfach 3640, 76021 Karlsruhe, Germany — ⁵Centre de Sciences Nucléaires et de Sciences de la Matière, IN2P3-CNRS, Université Paris XI, bat 108, 91405 Orsay, France — ⁶Karlsruher Institut für Technologie, Institut für Experimentelle Kernphysik, Gaedestra. 1, 76128 Karlsruhe, Germany — ⁷Karlsruher Institut für Technologie, Institut für Kernphysik, Postfach 3640, 76021 Karlsruhe, Germany — ⁸JINR, Laboratory of Nuclear Problems, Joliot-Curie 6, 141980 Dubna, Moscow Region, Russian Federation — ⁹University of Oxford, Department of Physics, Keble Road, Oxford OX1 3RH, UK — ¹⁰University of Sheffield, Department of Physics and Astronomy, Sheffield, S3 7RH, UK — ¹¹CEA Saclay, DSM/IRAMIS, 91191 Gif-sur-Yvette Cedex, France

Koll 19: EtaPrime-Kollaboration

YASSID AYYAD¹, JOSE BENLIURE², KAI-TOMAS BRINKMANN³, STEFAN FRIEDRICH³, HIROYUKI FUJIOKA⁴, HANS GEISSEL⁵, JNANESWARI GELLANKI⁶, CHENLEI GUO⁷, ERIC GUTZ³, EMMA HAETTNER⁵, MUHSIN NAYEF HARAKEH⁶, RYUGO S. HAYANO⁸, YUKO HIGASHI⁹, SATORU HIRENZAKI⁹, CHRISTINE HORUNG³, YOICHI IGARASHI¹⁰, NATSUMI IKENO¹¹, KENTA ITAHASHI¹², MASAHIKO IWASAKI¹², DAISUKE JIDO¹³, NASSER KALANTAR-NAYESTANAKI⁶, RITUPARNA KANUNGO¹⁴, RONJA KNOEBEL⁵, NIKOLAUS KURZ⁵, VOLKER METAG³, IVAN MUKHA⁵, TOMOFUMI NAGAE⁴, HIDEKO NAGAHIRO⁹, MARIANA NANOVÀ³, TAKAHIRO NISHI⁸, HOOI JIN ONG¹, STEPHANE PIETRI⁵, ANDREJ PROCHAZKA⁵, CHRISTOPHE RAPPOLD⁵, PASCAL REITER⁵, JOSE LUIS RODRIGUEZ SANCHEZ², CHRISTOPH SCHEIDENBERGER^{3,5}, HAIK SIMON⁵, BRANISLAV SITA¹⁵, PETER STRMEN¹⁵, BAOHUA SUN⁷, KEN SUZUKI¹⁶, IMRICH SZARKA¹⁵, MAYA TAKECHI¹⁷, YOSHIKI K. TANAKA⁵, ISAO TANIHATA^{1,7}, SATORU TERASHIMA⁷, YUNI N. WATANABE⁸, HELMUT WEICK⁵, EBERHARD WIDMANN¹⁶, JOHN WINFIELD⁵, XIAODONG XU⁵, HIROKI YAMAKAMI⁴ und JIANWEI ZHAO⁷ — ¹RCNP, Osaka University — ²Universidade de Santiago de Compostela — ³II. Physikalisches Institut, Universität Gießen —

⁴Department of Physics, Kyoto University — ⁵GSI Helmholtzzentrum für Schwerionenforschung GmbH — ⁶KVI, University of Groningen — ⁷School of Physics and Nuclear Energy Engineering, Beihang University — ⁸Department of Physics, University of Tokyo — ⁹Department of Physics, Nara Women's University — ¹⁰Institute of Particle and Nuclear Physics, High Energy, Accelerator Research Organization — ¹¹Tohoku University — ¹²RIKEN Nishina Center, Tokyo — ¹³Department of Physics, Tokyo Metropolitan University — ¹⁴Saint Mary's University — ¹⁵Comenius University Bratislava — ¹⁶Stefan Meyer Institut für subatomare Physik, Wien — ¹⁷Niigata University

Koll 20: EURICA RIBF09-Kollaboration

MAREK LEWITOWICZ¹, ROMAN GERNHÄUSER², SHUNJI NISHIMURA³, REINER KRÜCKEN⁴, HIROYOSHI SAKURAI³, HIDETADA BABA³, BERTRAM BLANK⁶, ANDREY BLAZHEV⁷, PLAMEN BOUTACHKOV⁸, FRANK BROWNE⁹, IGOR CELIKOVIC¹, PIETER DOORNENBAL³, THOMAS FAESTERMANN², YIFAN FANG¹⁰, GILLES DE FRANCE¹, NAMITA GOEL⁸, MAGDALENA GORSKA⁸, STOYANKA ILIEVE¹¹, TADAAKI ISOBE³, ANDREA JUNGCLAUS¹², GI DONG KIM¹³, YONG-KYUN KIM¹³, IVAN KOJOUHAROV⁸, NICO KURZ⁸, GIUSEPPE LORUSSO³, DANIEL LUBOS², KEVIN MOSCHNER⁷, IPPEI NISHIZUKA¹⁵, JASON PARK⁴, ZENA PATEL¹⁶, MUSTAFA MOIZ RAJABALI⁴, HENNING SCHAFFNER⁸, LAURA SINCLAIR¹⁷, PÄR-ANDERS SÖDERSTRÖM⁴, KONRAD STEIGER², TOSHIYUKI SUMIKAMA¹⁵, HIROSHI WATANABE¹⁸, ZHIMIN WANG⁴, JIN WU¹⁴ und ZHENGYU XU⁵ — ¹GANIL — ²Technische Universität München — ³RIKEN Nishina Center — ⁴TRIUMF — ⁵Department of Physics, Tokyo — ⁶CENBG — ⁷Institut für Kernphysik, Universität zu Köln — ⁸GSI Darmstadt — ⁹School of Comp., Eng. and Maths., Brighton University — ¹⁰Department of Physics, Osaka University — ¹¹Institut für Kernphysik, TU Darmstadt — ¹²IES CSIS — ¹³Institute of Basic Science — ¹⁴School of Physics, Peking University — ¹⁵Department pf Physics, Tohoku University — ¹⁶Department of Physics, Surrey University — ¹⁷Department of Physics, University of York — ¹⁸Department of Physics, Beihang University

Koll 21: EXILL-Kollaboration

CHRISTIAN BERNARDS¹, AURELIEN BLANC², R. BURCU CAKILI³, RICHARD F. CASTEN¹, NATHAN COOPER¹, GILLES DEFRAANCE⁴, MICHAEL JENTSCHEL², JAN JOLIE⁵, OLIVER KALEJA⁶, ULLI KÖSTER², THORSTEN KRÖLL⁶, PAOLO MUTTI², MICHAEL PFEIFFER⁵, JEAN-MARC RÉGIS⁵, NIMA SAED-SAMI⁵, MARCUS SCHECK^{6,7,8}, GARY SIMPSON⁹, TORSTEN SOLDNER², JILL STAMM⁶, MICHAEL THÜRAUF⁶, MEHMET TEZGEL⁶, WALDEMAR URBAN¹⁰, NIGEL WARR⁵, JEFF VANHOY¹¹, MAX WERNER⁶, VOLKER WERNER^{1,6}, DENNIS WILMSEN^{4,5} und KARL OSKAR ZELL⁵ — ¹Wright Laboratory, Yale Univ., New Haven, CT, USA — ²Institut Laue-Langevin, Grenoble, France — ³Istanbul University, Turkey — ⁴Grand Accélérateur National d'Ions Lourds, Caen, France — ⁵Institut für Kernphysik, Universität zu Köln, Germany — ⁶Institut für Kernphysik, TU Darmstadt, Germany — ⁷School of Eng. and Comp., Univ. of the West of Scotland, Paisley, UK — ⁸The Scottish Universities Physics Alliance, Glasgow, UK — ⁹LPSC, UJF Grenoble I, France — ¹⁰Faculty of Physcis, University of Warsaw, Poland — ¹¹Dep. of Physics, U.S. Naval Academy, Annapolis, MD, USA

Koll 22: EXL E105-Kollaboration

SOUMYA BAGCHI¹, SABINE BÖNIG², MARGIT CSATLÓS³, IRIS DILLMANN⁴, CHRISTINA DIMOPOULOU⁴, PETER EGELHOF⁴, VLADIMIR EREMIN⁵, TATSUYA FURUNO⁶, HANS GEISSEL⁴, ROMAN GERNHÄUSER⁷, MUSHIN N. HARAKEH¹, ANNA-LENA HARTIG², STOYANKA ILIEVA², NASSER KALANTAR-NAYESTANAKI¹, OLEG KISELEV⁴, HOLGER KOLLMUS⁴, CHRISTOPHOR KOZHUVAROV⁴, ATTILA KRASZNAHORKAY³, THORSTEN KRÖLL², MAARTJE KUILMAN¹, SERGEY LITVINOV⁴, YURI A. LITVINOV⁴, MASoud MAHJOURSHAFIEI^{1,8}, MANFRED MUTTERER⁴, DAISUKE NAGAE⁹, MOHAMMAD ALI NAJAFI¹, CHIARA NOCIFORO⁴, FRITZ NOLDEN⁴, ULRICH POPP⁴, CATHERINE RIGOLLET¹, SANTOSH ROY¹, CHRISTOPH SCHEIDENBERGER⁴, MIRKO VON SCHMID², MARKUS STECK⁴, BRANISLAV STREICHER^{1,4}, LÁSZLÓ STUHL³, MICHAEL THÜRAUF², TOMOHIRO UESAKA¹⁰, HELMUT WEICK⁴, JOHN STUART WINFIELD⁴, DANYAL WINTERS⁴, PHILIP J. WOODS¹¹, TAKAYUKI YAMAGUCHI¹², KE YUE^{2,4,13}, JUAN CARLOS ZAMORA² und JUZO ZENIHIRO¹⁰ — ¹KVI-CART, Groningen, The Netherlands — ²Institut für Kernphysik, TU Darmstadt, Germany — ³Institute for Nuclear Research, MTA-Atomki, Debrecen, Hungary — ⁴GSI Helmholtzzentrum für Schwerionenforschung GmbH, Darmstadt, Germany — ⁵Ioffe Physical-Technical Institute, St. Petersburg, Russia — ⁶Kyoto University, Japan — ⁷Physik-Department E12, TU München, Germany — ⁸University

of Tehran, Iran — ⁹University of Tsukuba, Japan — ¹⁰RIKEN Nishina Center, Japan — ¹¹University of Edinburgh, UK — ¹²Saitama University, Japan — ¹³Institute of Modern Physics, Lanzhou, China

Koll 23: FRS Ion Catcher-Kollaboration

FARAZ AMJAD², SAMUEL AYET², JULIAN BERGMANN¹, PETER DENDOOVEN³, TIMO DICKEL², MARCEL DIWISCH¹, JENS EBERT¹, ALFREDO ESTRADE², FABIO FARINON², HANS GEISSEL^{1,2}, FLORIAN GREINER¹, EMMA HAETTNER², FABIAN HEISSE², CHRISTINE HORNUNG¹, CHRISTIAN JESCH¹, NASSER KALANTAR-NAYESTANAKI², RONJA KNOEBEL², JAN KURCEWICZ², WAYNE LIPPERT¹, IVAN MISKUN², IAN MOORE⁴, IVAN MUKHA², CHIARA NOCIFORO², MARTIN PETRICK¹, MAREK PFUETZNER², STEPHANE PIETRI², WOLFGANG R. PLASS^{1,2}, ILKA POHALINE⁴, ANDREJ PROCHAZKA², SIVAJI PURUSHOTHAMAN², MANISHA RANJAN³, MORITZ PASCAL REITER¹, ANN-KATHRIN RINK¹, SAMI RINTA-ANTILA⁴, CHRISTOPH SCHEIDENBERGER^{1,2}, MAYA TAKECHI², YOSHIKI TANAKA², HELMUT WEICK², JOHN STUART WINFIELD², XU XIADONG², MIKHAIL YAVOR⁵ und ALEKSANDRA KELIC-HEIL² — ¹II. Physikalisches Institut, Justus-Liebig-Universität Gießen, Gießen, Germany — ²GSI Helmholtzzentrum für Schwerionenforschung, Darmstadt, Germany — ³KVI, University of Groningen, The Netherlands — ⁴University of Jyväskylä, Jyväskylä, Finland — ⁵Institute for Analytic Instrumentation, RAS, St. Petersburg, Russia

Koll 24: FRS-ESR-Kollaboration

FRITZ BOSCH¹, DAVID BOUTIN¹, LIXIN CHEN¹, CHRISTINA DIMOPOULOU¹, MARCEL DIWISCH², OLEKSIY DOLINSKY¹, BERNHARD FRANCAZAK¹, BERNHARDT FRANZKE¹, HANS GEISSEL^{1,2}, MARC HAUSMANN³, RONJA KNÖBEL¹, CHRISTOPHOR KOZHUVAROV¹, JAN KURCEWICZ¹, SERGEY A. LITVINOV¹, YURI A. LITVINOV¹, GOTTFRIED MÜNZENBERG¹, GABRIEL MARTINEZ-PINEDO^{4,1}, MILAN MATOS¹, MARCO MAZZOCCO¹, SHINPEI NAKAJIMA⁵, CHIARA NOCIFORO¹, FRITZ NOLDEN¹, TAKA OHTSUBO⁶, AKI OZAWA⁷, ZYGMUNT PATYK⁸, WOLFGANG R. PLASS^{1,2}, CHRISTOPH SCHEIDENBERGER^{1,2}, JENS STADLMANN¹, MARKUS STECK¹, BAOHUA SUN^{9,1}, TAKESHI SUZUKI⁵, PHIL M. WALKER¹⁰, HELMUT WEICK¹, MARTIN WINKLER¹, MENG-RU WU⁴ und TAKAYUKI YAMAGUCHI⁵ — ¹GSI Helmholtzzentrum für Schwerionenforschung GmbH, 64291 Darmstadt, Germany — ²II. Physikalisches Institut, Justus-Liebig-Universität Gießen, 35392 Gießen, Germany — ³Michigan State University, East Lansing, Michigan 48824, USA — ⁴Physikalisches Institut, Technische Universität Darmstadt, 64289 Darmstadt — ⁵Department of Physics, Saitama University, Saitama 338-8570, Japan — ⁶Department of Physics, Niigata University, Niigata 950-2181, Japan — ⁷Institute of Physics, University of Tsukuba, Ibaraki 305-8571, Japan — ⁸National Centre for Nuclear Research - NCBJ Swierk, Hoża 69, 00-681 Warszawa, Poland — ⁹School of Physics and Nuclear Energy Engineering, Beihang University, Beijing 100191, China — ¹⁰Department of Physics, University of Surrey, Guildford, GU2 7XH, United Kingdom

Koll 25: GERDA-Kollaboration

MATTEO AGOSTINI¹, MATHIAS ALLARDT⁴, ALEXANDER M BAKALYAROV¹³, MARCO BALATA¹, IGOR BARABANOV¹¹, LAURA BAUDIS¹⁹, CHRISTIAN BAUER⁷, ENRICO BELLOTTI^{8,9}, SERGEJ BELOGUROV^{12,11}, SPARTAK T BELYAEV¹³, GIOVANNI BENATO¹⁹, ALESSANDRO BETTINI^{16,17}, LEONID BEZRUKOV¹¹, TOBIAS BODE¹⁵, DARIUSZ BOROWICZ^{3,5}, VICTOR BRUDANIN⁵, RICCARDO BRUGNERA^{16,17}, ALLEN CALDWELL¹⁴, CARLA CATTADORI⁹, ANDREY CHERNOGOROV¹², VALERIO D'ANDREA¹, ELENA V DEMIDOV¹², NATALIA DI MARCO¹, ASSUNTA DI VACRI¹, ALEXANDER DOMULA⁴, EVGENYI DOROSHKEVICH¹¹, VIACHESLAV EGOROV⁵, RAPHAEL FALKENSTEIN¹⁸, OLGA FEDOROVA¹¹, KAI FREUND¹⁸, NIKODEM FRODYM³, ALBERT GANGAPSHEV^{11,7}, ALBERTO GARFAGNINI^{16,17}, CHRIS GOOCH¹⁴, PETER GRABMAYR¹⁸, VALERY GURENTSOV¹¹, CONSTANTIN GUSEV^{13,5,15}, CAROLINE HAHNE⁴, JANINA HAKENMÜLLER⁷, ALEXANDER HEGAI¹⁸, MARK HEISEL⁷, SABINE HEMMER^{16,17}, WERNER HOFMANN⁷, MIKAEL HULT⁶, LEV INZHECHIK¹¹, JOZSEF JANCSKO CSATHY¹⁵, JOSEF JOCHUM¹⁸, MATTHIAS JUNKER¹, VLADIMIR KAZALOV¹¹, THOMAS KIH⁷, IGOR V KIRPICHNIKOV¹², ANDREA KIRSCH⁷, ALEX KISH¹⁹, ALEXANDER KLIMENTKO^{7,5}, RAPHAEL KNEISL¹⁴, KARL T KNÖPFLE⁷, OLEG KOCHETOV⁵, VASILY N KORNOKHOV^{12,11}, VALERY V KUZMINOV¹¹, MATTHIAS LAUBENSTEIN¹, ANDREA LAZZARO¹⁵, VALENTIN I LEBEDEV¹³, BJÖRN LEHNERT⁴, HENG Y LIAO¹⁴, MANFRED LINDNER⁷, IVANO LISSI¹⁷, ALEXEY LUBASHEVSKY^{7,5}, BAYARTO LUBSANDORZHIEV¹¹, GUILAUME LUTTER⁶, BELA MAJOROVITS¹⁴, WERNER MANESCHG⁷,

EDUARDO MEDINACELI^{16,17}, MICHAEL MOLORADOVIC¹⁹, RIZALINA MINGAZHEVA¹⁹, MARCIN MISIASZEK³, PAVEL MOSEEV¹¹, IGOR NEMCHENOK⁵, DIMITRIS PALIOSELITIS¹⁴, KRYSZTOF PANAS³, LUCIANO PANDOLA², KRYSZTOF PELCZAR³, ALBERTO PULLIA¹⁰, STEFANO RIBOLDI¹⁰, NADEZDA RUMYANTSEVA⁵, CINZIA SADA^{16,17}, FRANCESCO SALAMIDA⁹, MARCO SALATHE⁷, CHRISTOPHER SCHMITT¹⁸, BIRGIT SCHNEIDER⁴, JOCHEN SCHREINER⁷, OLIVER SCHULZ¹⁴, BERNHARD SCHWINGENHEUER⁷, STEFAN SCHÖNERT¹⁵, ANN-KATRIN SCHÜTZ¹⁸, OLEG SELIVANENKO¹¹, EGOR SHEVCHIK⁵, MARK SHIRCHENKO^{13,5}, HARDY SIMGEN⁷, ANATOLY SMOLNIKOV⁷, LUCA STANCO¹⁷, MYKOLA STEPANIUK⁷, LAURA VANHOEFER¹⁴, ANDREY A VASENKO¹², ANNA VERESNIKOVA¹¹, KATHARINA VON STURM^{16,17}, VICTORIA WAGNER⁷, MANUEL WALTER¹⁹, ANNE WEGMANN⁷, THOMAS WESTER⁴, CHRISTOPH WIESINGER¹⁵, HEINRICH WILSENACH⁴, MARCIN WOJCIK³, EVGENY YANOVICH¹¹, IGOR ZHITNIKOV⁵, SERGEY V ZHUKOV¹³, DANIYA ZINATULINA⁵, KAI ZUBER⁴ und GRZEGORZ ZUZEL³ — ¹INFN Laboratori Nazionali del Gran Sasso and Gran Sasso Science Institute, Assergi, Italy — ²INFN Laboratori Nazionali des Sud, Catania, Italy — ³Institute of Physics, Jagiellonian University, Cracow, Poland — ⁴Institut für Kern- und Teilchenphysik, Technische Universität Dresden, Dresden, Germany — ⁵Joint Institute for Nuclear Research, Dubna, Russia — ⁶Institute for Reference Materials and Measurements, Geel, Belgium — ⁷Max-Planck-Institut für Kernphysik, Heidelberg, Germany — ⁸Dipartimento di Fisica, Università Milano Bicocca, Milano, Italy — ⁹INFN Milano Bicocca, Milano, Italy — ¹⁰Dipartimento di Fisica, Università degli Studi di Milano e INFN Milano, Milano, Italy — ¹¹Institute for Nuclear Research of the Russian Academy of Sciences, Moscow, Russia — ¹²Institute for Theoretical and Experimental Physics, Moscow, Russia — ¹³National Research Centre “Kurchatov Institute”, Moscow, Russia — ¹⁴Max-Planck-Institut für Physik, München, Germany — ¹⁵Physik Department and Excellence Cluster Universe, TU München, Germany — ¹⁶Dipartimento di Fisica e Astronomia dell’Università di Padova, Padova, Italy — ¹⁷INFN Padova, Padova, Italy — ¹⁸Physikalisches Institut, Eberhard Karls Universität Tübingen, Tübingen, Germany — ¹⁹Physik Institut der Universität Zürich, Zürich, Switzerland

Koll 26: HADES-Kollaboration

JÖRN ADAMCZEWSKI-MUSCH⁴, GEYDAR AGAKISHIEV⁷, OLIVER ARNOLD^{10,9}, ERMIAS ATOMSSA¹⁵, CLAUDIA BEHNKE⁸, ALEXANDER BELYAEV⁷, JACEK BIERNAT³, ALBERTO BLANCO², CHRISTOPH BLUME⁸, MICHAEL BÖHMER¹⁰, PAULA BORDALO², SERGEY CHERNENKO⁷, CHRISTINA DEVEAUX¹¹, JOSE DIAZ¹⁸, ELIANE EPPLER^{10,9}, LAURA FABBETTI^{10,9}, OLEG FATEEV^{10,9}, PETER FILIP¹, PAULO FONTE², CELSO FRANCO², JÜRGEN FRIESE¹⁰, INGO FRÖHLICH⁸, TETYANA GALATYUK⁵, JUAN GARZÓN¹⁷, ROMAN GERNHÄUSER¹⁰, ALEJANDRO GIL¹⁸, MARINA GOLUBEVA¹², FEDOR GUBER¹², MALGORZATA GUMBERIDZE⁵, SZYMON HARABASZ^{5,3}, KLAUS HEIDEL⁶, THORSTEN HEINZ⁴, THIERRY HENNINO¹⁵, MATTHILDE HIMMELREICH⁸, CLAUDIA HÖHNE¹¹, ROMAIN HOLZMANN⁴, ALEXANDER IERUSALIMOV⁷, ALEXANDER IVASHKIN¹², BURKHARD KÄMPFER⁶, MARCIN KAJETANOWICZ³, TATIANA KARAVICHEVA¹², BEHRUZ KARDAN⁸, VLADIMIR KHOMYAKOV¹³, ILSE KOENIG⁴, WOLFGANG KOENIG⁴, BURKHARD KOLB⁴, VLADIMIR KOLGANOV¹³, GRZEGORZ KORCYL³, FREDERIC KORNAS⁵, ROLAND KOTTE⁶, ERIK KREBS⁸, ANDREJ KUGLER¹⁶, TOBIAS KUNZ¹⁰, ALEXEI KUREPIN¹², ALEXEI KURILKIN⁷, PAVEL KURILKIN⁷, VLADIMIR LADYGIN⁷, Rafał LALIK^{10,9}, KIRILL LAPIDUS^{10,9}, ALEXANDER LEBEDEV¹³, SERGEY LINEV⁴, MING LIU¹¹, LUIS LOPEZ², MANUEL LORENZ⁸, GENNADY LYKASOV⁷, TARIQ MAHMOUD¹¹, LUDWIG MAIER¹⁰, ALEXANDER MALAKHOV⁷, JOCHEN MARKERT⁴, VOLKER METAG¹¹, JAN MICHEL⁸, DIMITAR MIHAYLOV^{10,9}, CHRISTIAN MÜNTZ⁸, ROBERT MÜNZER^{10,9}, LOTHAR NAUMANN⁶, YANNIS PARPOTTAS¹⁴, VLADIMIR PECHENOV⁴, OLGA PECHENOV⁸, AMERICO PEREIRA², VLASIOS PETOUSIS¹⁴, OLEG PETUKHOV¹², JERZY PIETRASZKO⁴, ARUN PRAKASH¹⁶, WITOLD PRZYGODA³, NICOLAY RABIN¹³, SERGIO RAMOS², BÉATRICE RAMSTEIN¹⁵, ANDREI RESHETIN¹², PHILIPPE ROSIER¹⁵, ADRIAN ROST⁵, ALEXANDER SADOVSKY¹², PIOTR SALABURA³, TIMO SCHEIB⁸, HEIDI SCHULDES⁸, ERWIN SCHWAB⁴, FEDERICO SCOZZI^{5,15}, FLORIAN SECK⁵, PATRICK SELLHEIM⁸, LUIS SILVA², VLADIMIR SMOLYANKIN¹³, JERZY SMYRSKI³, MANFRED SOBIELLA⁶, YURI SOBOLEV¹⁶, STEFANO SPATARO¹⁹, HERBERT STRÖBELE⁸, JOACHIM STROTH^{8,4}, PAWEŁ STRZEMPEK³, CHRISTIAN STURM⁴, ONDŘEJ SVOBODA¹⁶, PAVEL TLUSTÝ¹⁶, MICHAEL TRAXLER⁴, ALEXANDER TROYAN⁷, HARALABOS TSERTOS¹⁴, TARAS VASILIEV⁷, VLADIMIR WAGNER¹⁶, CHRISTIAN WENDISCH⁴, MICHAEL WIEBUSCH⁸, JOANA WIRTH^{10,9}, JÖRN WÜSTENFELD⁶ und YURI ZANEVSKY⁷ — ¹Institute of Physics, Slovak Academy of Sciences, 84228 Bratislava, Slovakia — ²LIP-Laboratório

de Instrumentação e Física Experimental de Partículas , 3004-516 Coimbra, Portugal — ³Smoluchowski Institute of Physics, Jagiellonian University of Cracow, 30-059 Kraków, Poland — ⁴GSI Helmholtzzentrum für Schwerionenforschung GmbH, 64291 Darmstadt, Germany — ⁵Technische Universität Darmstadt, 64289 Darmstadt, Germany — ⁶Institut für Strahlenphysik, Helmholtz-Zentrum Dresden-Rossendorf, 01314 Dresden, Germany — ⁷Joint Institute of Nuclear Research, 141980 Dubna, Russia — ⁸Institut für Kernphysik, Goethe-Universität, 60438 Frankfurt, Germany — ⁹Excellence Cluster ‘Origin and Structure of the Universe’, 85748 Garching, Germany — ¹⁰Physik Department E12, Technische Universität München, 85748 Garching, Germany — ¹¹II.Physikalisches Institut, Justus Liebig Universität Giessen, 35392 Giessen, Germany — ¹²Institute for Nuclear Research, Russian Academy of Science, 117312 Moscow, Russia — ¹³Institute of Theoretical and Experimental Physics, 117218 Moscow, Russia — ¹⁴Department of Physics, University of Cyprus, 1678 Nicosia, Cyprus — ¹⁵Institut de Physique Nucléaire (UMR 8608), CNRS/IN2P3 - Université Paris Sud, F-91406 Orsay Cedex, France — ¹⁶Nuclear Physics Institute, Academy of Sciences of Czech Republic, 25068 Rez, Czech Republic — ¹⁷LabCAF. F. Física, Univ. de Santiago de Compostela, 15706 Santiago de Compostela, Spain — ¹⁸Instituto de Física Corpuscular, Universidad de Valencia-CSIC, 46971 Valencia, Spain — ¹⁹Dipartimento di Fisica and INFN, Università di Torino, 10125 Torino, Italy

Koll 27: ISOLTRAP-Kollaboration

NUMA ALTHUBITI¹, PAULIN ASCHER², DINKO ATANASOV³, KLAUS BLAUM³, MARTIN BREITENFELDT^{4,10}, RABIA BURCU CAKIRLI⁵, THOMAS ELIAS COCOLIOS¹, ANTOINE DE ROUBIN³, SEBASTIAN GEORGE³, FRANK HERFURTH⁶, MAGDALENA KOWALSKA⁴, SUZANNE KREIM³, YURY LITVINOV⁶, DAVID LUNNEY⁷, VLADIMIR MANEA³, ENRIQUE MINAYA-RAMIREZ³, MAXIME MOUGEOT⁷, DENNIS NEIDHERR⁶, MARCO ROSENBUSCH⁸, LUTZ SCHWEIKHARD⁸, ANDREE WELKER^{4,9}, FRANK WIENHOLTZ⁸, ROBERT WOLF³ und KAI ZUBER⁹ — ¹University of Manchester, United Kingdom — ²CENBG, Bordeaux, France — ³Max-Planck-Institut für Kernphysik, Heidelberg, Germany — ⁴CERN, Geneva, Switzerland — ⁵Department of Physics, University of Istanbul, Turkey — ⁶GSI Helmholtzzentrum für Schwerionenforschung GmbH, Darmstadt, Germany — ⁷CSNSM-IN2P3-CNRS, Orsay, France — ⁸Ernst-Moritz-Arndt-Universität, Institut für Physik, Greifswald, Germany — ⁹Institut für Kern- und Teilchenphysik, Technische Universität Dresden, Germany — ¹⁰Grupo de Física Nuclear, Universidad Complutense, Madrid, Spain

Koll 28: JEDI-Kollaboration

SERGEI ANDRIANOV¹, WITOLD AUGUSTYNIAK², ZARA BAGDASARIAN³, MEI BAI⁴, MAUD BAYLAC⁵, ULF BECHSTEIDT⁴, WERNER BERNREUTHER⁶, SUSANNA BERTELLI⁷, MARTIN BERZ⁸, CHRISTIAN BÖHME⁴, JÜRGEN BÖKER⁴, JAN BSAISOU³, STANISLAV CHEKMENEV⁹, DAVID CHILADZE¹⁰, GIUSEPPE CIULLO⁷, MARCO CONTALBRIGO⁷, JEAN MARIE DE CONTO¹¹, JORDY DE VRIES¹², SERGEY DYMOV¹³, RALF ENGELS³, FRANK MARTIN ESSER¹⁴, DENNIS EVERSMANN⁹, OLAF FELDEN³, PETER FIERLINGER¹⁵, MARTIN GAISSER¹⁶, RALF GEBEL³, HARALD GLÜCKLER¹⁴, FRANK GOLDENBAUM³, KIRILL GRIGORYEV⁹, DIETER GRONKA³, GRETA GUIDOBONI⁷, TANJA HAHNRATHS¹⁷, CHRISTOPH HANHART³, DIRK HEBERLING¹⁸, VOLKER HEJNY³, NILS HEMPELMANN⁹, JAN HENRY HETZEL⁴, FABIAN HINDER⁹, ROBERT HIPPLE⁸, DOMINIK HÖLSCHER¹⁸, ANDREI IVANOV¹, ANDRO KACHARAVA³, VSEVOLOD KAMERDZHIK⁴, BOGUSLAW KAMYS¹⁹, IRAKLI KESHELASHVILI³, ALFONS KHOUKAZ²⁰, IVAN KOOP²¹, HANS-JOACHIM KRAUSE²², PETER KRAVTSOV²³, SIGFRIED KREWALD³, ANATOLI KULIKOV¹³, ANDREAS LEHRACH⁴, PAOLO LENISA⁷, NODAR Lomidze¹⁰, BERND LORENTZ⁴, PAUL MAANEN⁹, GOGI MACHARASHVILI²⁴, ANDRZEJ MAGIERA¹⁹, RUDOLF MAIER⁴, KYOKO MAKINO⁸, BOHDAN MARIANSKI², DAVID MCCHEDLISHVILI³, ULF MEISSNER²⁵, ERIC METODIEV²⁶, SEBASTIAN MEY⁴, WILLIAM MORSE²⁷, ALEXANDER NASS³, GHALEB NATOUR¹⁴, NIKOLAY NIKOLAEV²⁸, MIKHEIL NIORADZE¹⁰, ANDREAS NOGGA³, KRZYSZTOF NOWAKOWSKI¹⁹, YURI ORLOV²⁹, ANDREA PESCE⁷, DIETER PRASUHN⁴, JOERG PRETZ⁹, FRANK RATHMANN³, JAMES RITMAN³, MARCEL ROSENTHAL⁹, ZBIGNIEW RUDY¹⁹, ARTEM SALEEV³, VERA SCHMIDT⁴, THOMAS SEFZICK³⁰, YANNIS SEMERTZIDIS¹⁶, YURI SENICHEV⁴, VERA SHMAKOVA¹³, ALEXANDER SILENKO³¹, MICHAEL SIMON⁴, JAMAL SLIM¹⁸, HELMUT SOLTNER¹⁴, ACHIM STAHL⁹, ROLF STASSEN⁴, MARCO STATERA⁷, EDWARD STEPHENSON³², HANS STOCKHORST⁴, HEIDI STRAATMANN¹⁴, HANS STROEHER³, MIRIAN TABIDZE¹⁰, RICHARD TALMAN²⁹, PIA THÖRNNGREN ENGBLOM³³, FABIAN TRINKEL⁹, ANDRZEJ TRZCINSKI², YURI UZIKOV¹³, YURI

VALDAU²⁵, EREMEEV VALETOV⁸, ALEXANDER VASSILIEV²³, CHRISTIAN WEIDEMANN³, COLIN WILKIN³⁴, ANDREAS WIRZBA³, ALEKSANDRA WROŃSKA¹⁹, PETER WUESTNER¹⁴, MONIKA ZAKRZEWSKA¹⁹, PAWEŁ ZUPRANSKI³⁵ und DENIS ZYUZIN¹ — ¹Faculty of Applied Mathematics and Control Processes, St. Petersburg State University. St. Petersburg, Russia. — ²Department of Nuclear Physics, National Centre for Nuclear Research. Warsaw, Poland. — ³Institut für Kernphysik, Forschungszentrum Jülich. Jülich, Germany. — ⁴IKP-4, Forschungszentrum Jülich. Jülich, Germany. — ⁵CNRS/IN2P3 - UGA, LPSC . Grenoble, France. — ⁶Institut für Theoretische Teilchenphysik und Kosmologie, RWTH Aachen University. Aachen, Germany. — ⁷Istituto Nazionale di Fisica Nucleare. Ferrara, Italy. — ⁸Department of Physics and Astronomy, Michigan State University. East Lansing, Michigan, USA. — ⁹III. Physikalisches Institut B, RWTH Aachen University. Aachen, Germany. — ¹⁰High Energy Physics Institute, Tbilisi State University. Tbilisi, Georgia. — ¹¹LPSC, Université Grenobles Alpes. Grenoble, France. — ¹²Institute for Advanced Simulation, Forschungszentrum Jülich. Jülich, Germany. — ¹³Laboratory of Nuclear Problems, Joint Institute for Nuclear Research. Dubna, Russia. — ¹⁴Zentralinstitut für Engineering, Elektronik und Analytik, Forschungszentrum Jülich. Jülich, Germany. — ¹⁵Physics, TU München. Garching, Germany — ¹⁶Center for Axion and Precision Physics Research, Institute for Basic Science. Daejeon, Republic of Korea. — ¹⁷IKP, Forschungszentrum Jülich. Juelich, Germany. — ¹⁸Institut für Hochfrequenztechnik, RWTH Aachen University. Aachen, Germany. — ¹⁹Institute of Physics, Jagiellonian University. Cracow, Poland. — ²⁰Institut für Kernphysik, Universität Münster. Münster, Germany. — ²¹Budker Institute of Nuclear Physics. Novosibirsk, Russia. — ²²PGI-8, Forschungszentrum Jülich. Jülich, Germany. — ²³Petersburg Nuclear Physics Institute. Gatchina, Russia. — ²⁴Tbilisi State University. Tbilisi, Georgia. — ²⁵Helmholtz-Instituts für Strahlen- und Kernphysik, Universität Bonn. Bonn, Germany. — ²⁶Center for Axion and Precision Physics, Institute for Basic Science. Daejeon, Republic of Korea. — ²⁷Phycis, BNL. Upton, USA. — ²⁸L.D. Landau Institute for Theoretical Physics. Chernogolovka, Russia. — ²⁹Department of Physics, Cornell University. Ithaca, USA. — ³⁰IKP, FZJ. Juelich, D. — ³¹Research Institute for Nuclear Problems, Belarusian State University. Minsk, Belarus. — ³²Center for Spacetime Symmetries, Indiana University. Bloomington, USA. — ³³Department of Physics, KTH Royal Institute of Technology. Stockholm, Sweden. — ³⁴Physics and Astronomy Department, University College London. London, United Kingdom. — ³⁵Department of Nuclear Reactions, Andrzej Soltan Institute for Nuclear Studies. Warsaw, Poland.

Koll 29: KATRIN-Kollaboration

BIRGIT ADAMS¹, JOHN AMSBAUGH², JOHANNES ANTONI¹, MARIUS ARENZ³, MARTIN BABUTZKA¹, MATTHEW BAHR⁴, FRANK BANDENBURG¹, JOHN BARRETT⁵, MARCUS BECK⁶, ARMEN BEGLARIAN¹, JAN D. BEHRENS⁷, ALEXANDER BELESEV⁸, TILL BERGMANN¹, ANATOLY BERLEV⁸, JOHANNES BLÜMER¹, KLAUS BLAUM⁹, STEFFEN BOBIEN¹, LAURA BODINE², BEATE BORNSCHEIN¹, LUTZ BORNSCHEIN¹, HEIKO BOUQUET¹, TOM BURRITT², SUREN CHILINGARIAN¹, RODOLPHE COMBE¹, THOMAS CORONA¹⁰, CHRISTIAN DAY¹, PETER DOE², KAI DOLDE¹, OTOKAR DRAGOUN¹¹, GUIDO DREXLIN¹, STEPHAN DYBA⁷, SYLVIA EBENHÖCH¹, KLAUS EITEL¹, ENRICO ELLINGER¹², SANSHIRO ENOMOTO², MORITZ ERHARD¹, DIETER EVERSHAM³, ARNE FELDEN¹, SEBASTIAN FISCHER¹, JOSEPH FORMAGGIO⁵, FLORIAN FRÄNKLE¹, HOLGER FRENZEL¹, DANIEL FURSE⁵, RAINER GEHRING¹, HARTMUT GEMMEKE¹, EVGENY GERASKIN⁸, MARIAN GHILEA⁴, WOOSIK GIL¹, FERENC GLÜCK¹, ALEXANDER GOLUBEV⁸, STEFAN GROH¹, STEFFEN GROHMANN¹, RAINER GUMBSHEIMER¹, THOMAS HÖHN¹, MORITZ HACKENJOS¹, VOLKER HANNEN⁷, STEEN HANNESTAD¹³, FABIAN HARMS¹, JULIUS HARTMANN¹, NORMAN HAUSSMANN¹², WALDEMAR HAZENBILLER¹⁴, FLORIAN HEIZMANN¹, KLAUS HELBING¹², STEPHANIE HICKFORD¹², DANIEL HILK¹, MARK HOWE¹⁰, ANTON HUBER¹, TIMOTHY JAMES¹, ALEXANDER JANSEN¹, ASHER KABOTH⁵, JAMES KELSEY⁵, NORBERT KERNERT¹, MARCO KLEESIEK¹, MANUEL KLEIN¹, ANDREAS KOPMANN¹, MARC KORZECZEK¹, ANDREAS KOSMIDER¹, ALOIZ KOVALIK¹¹, UWE KRÄMER¹, MARCEL KRAUS¹, HOLGER KRAUSE¹, LAURA KUCKERT¹, ANDREJ KUDYMOW¹, LUISA LA CASCIO¹, ANDREJ LEBEDA¹¹, BENJAMIN LEIBER¹, JOHANN LETNEV¹⁴, NIKOLAY LIKHOVID⁸, JOHANNA LINEK¹, MARTIN MARK¹, ALEXANDER MARKIN⁸, ERIC MARTIN², SUSANNE MERTENS¹⁵, BENJAMIN MONREAL⁴, AXEL MÜLLER¹, FLORIAN MÜLLER¹, KLAUS MÜLLER¹, UWE NAUMANN¹², SIMON NIEMES¹, MATHIAS NOE¹, ALEXANDER NOZIK⁸, NOAH OBLATH⁵, JAN OERTLIN¹, HANS-WERNER ORTJOHANN⁷, ALEXANDER OSIPOWICZ¹⁴, ERNST OTTEN⁶, VLA-

DISLAV PANTUYEV⁸, VLADIMIR PARFENOV⁸, DIANA S. PARNO², DAVID A. PETERSON², LARS PETZOLD¹, DAVID PHILLIPS¹⁰, PETER PLISCHKE¹, ALAN POON¹⁵, JAHANGIR POURYAMOUT¹², FLORIAN PRIESTER¹, MARCO RÖLLIG¹, MANUEL RABOLD¹, PHILIPP C. RANITZSCH⁷, OLIVER REST⁷, INGO REUTER¹, RICHARD RINK¹, HAMISH ROBERTSON², PETRA ROHR¹, SIMONE RUPP¹, MILOŠ RÝŠAVÝ¹¹, KERSTIN SCHÖNUNG¹, KLAUS SCHLÖSSER¹, MAGNUS SCHLÖSSER¹⁶, JOHANNES SCHWARZ¹, HENDRIK SEITZ-MOSKALIU¹, JANA SENTKERESTIOVÁ¹¹, AINO SKASYRSKAYA⁸, MARTIN SLEZAK¹¹, ANTONIN SPALEK¹¹, MARKUS STEIDL¹, NICHOLAS STEINBRINK⁷, MICHAEL STURM¹, MANFRED SÜSSER¹, HELMUT TELLE¹⁶, THOMAS THÜMMLER¹, NIKITA TITOV⁸, NICOLAI TOLICH², NIKOLAUS TROST¹, HERBERT ULLRICH¹, ANGEL URENA¹⁶, SEBASTIAN VÖCKING⁷, KATHRIN VALERIUS¹, TIM VAN WECHEL², DRAHOSLAV VENOS¹¹, REINER VIANDEN³, SASCHA WÜSTLING¹, OLIVER WACK¹, BRANDON WALL², NANCY WANDKOWSKY¹, MARC WEBER¹, CHRISTIAN WEINHEIMER⁷, JOHANNES WEIS¹, JOHN WILKERSON¹⁰, JOACHIM WOLF¹, JULIEN WULF¹, MICHAEL ZACHER⁷ und SERGEY ZADOROGHNY⁸ — ¹Karlsruher Institut für Technologie, Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen, Germany — ²University of Washington, Center for Experimental Nuclear Physics and Astrophysics, and Department of Physics, Seattle, WA 98195, USA — ³Universität Bonn, Helmholtz-Institut für Strahlen- und Kernphysik, Nussallee 14-16, 53115 Bonn, Germany — ⁴University of California at Santa Barbara, Department of Physics, Broida Hall, Santa Barbara, CA 93106-9530, USA — ⁵Massachusetts Institute of Technology, Laboratory for Nuclear Science, 77 Massachusetts Ave, Cambridge, MA 02139, USA — ⁶Johannes Gutenberg-Universität Mainz, Institut für Physik, 55099 Mainz, Germany — ⁷Westfälische Wilhelms-Universität Münster, Institut für Kernphysik, Wilhelm-Klemm-Str. 9, 48149 Münster, Germany — ⁸Academy of Sciences of Russia, Institute for Nuclear Research, 60th October Anniversary Prospect 7a, 117312 Moscow, Russia — ⁹Max-Planck-Institut für Kernphysik, Saupfercheckweg 1, 69117 Heidelberg, Germany — ¹⁰University of North Carolina, Department of Physics and Astronomy, Phillips Hall, CB 3255, Chapel Hill, NC 27599-3255, USA — ¹¹Academy of Sciences of the Czech Republic, Nuclear Physics Institute, CZ-250 68 Řež near Prague, Czech Republic — ¹²University of Wuppertal, Gaußstr. 20, 42119 Wuppertal, Germany — ¹³University of Aarhus, Department of Physics and Astronomy, Ny Munkegade, Bld. 1520, DK-8000 Aarhus C, Denmark — ¹⁴University of Applied Sciences (FH) Fulda, Marquardtstr. 35, 36039 Fulda, Germany — ¹⁵Lawrence Berkeley National Laboratory, Institute for Nuclear & Particle Astrophysics, Mail Stop 50R5008, 1 Cyclotron Road, Berkeley, CA 94720, USA — ¹⁶Universidad Complutense de Madrid, Instituto Pluridisciplinar, Paseo Juan XXIII n°1, 28040 Madrid, Spain

Koll 30: LIGHT-Kollaboration

DENNIS SCHUMACHER¹, DIANA JAHN², JOHANNES DING², CHRISTIAN BRABETZ¹, ABEL BLAZEVIC^{1,4}, VINCENT BAGNOUD^{1,4}, SIMON WEIH², FLORIAN KROLL³, ULRICH SCHRAMM³, TOM COWAN³, GERALD SCHREIBER¹, OLIVER BOINE-FRANKENHEIM² und MARKUS ROTH² — ¹GSI Helmholtzzentrum für Schwerionenforschung — ²TU Darmstadt — ³Helmholtzzentrum Dresden Rossendorf — ⁴Helmholtzinstitut Jena

Koll 31: LNL 11.22-Kollaboration

D. BAZZACCO⁵, B. BIRKENBACH¹, M. BOWRY⁶, A. BRACCO⁷, B. BRUYNEEL⁸, F.C.L. CRESPI⁷, L. CORRADINI², G. DE ANGELIS², P. DÉSESQUELLES⁹, J. EBERTH¹, E. FARNEA⁵, E. FIORETTI², A. GADEA¹⁰, K. GEIBEL¹, A. GENGELBACH¹¹, A. GIAZ⁷, A. GÖRGEN^{12,13}, A. GOTTARDO², J. GREBOSZ¹⁴, H. HESS¹, P.R. JOHN^{4,5}, J. JOLIE¹, D.S. JUDSON¹⁵, A. JUNGCLAUS¹⁶, W. KORTEN¹³, S. LEONI⁷, S. LUNARDI^{4,5}, R. MENEGAZZO⁵, D. MENGONI^{17,4,5}, C. MICHELAGNOLI^{23,4,5}, T. MIJATOVIC³, G. MONTAGNOLI^{4,5}, D. MONTANARI^{22,4,5}, D. NAPOLI², L. PELLEGRI⁷, G. POLLARO¹⁸, A. PULLIA⁷, B. QUINTANA¹⁹, F. RADECK¹, F. RECCHIA^{4,5}, P. REITER¹, D. ROSSO², E. SAHIN^{12,2}, M.D. SALSA¹³, F. SCARLASSARA^{4,5}, P.-A. SÖDERSTRÖM^{24,20}, A.M. STEFANINI², T. STEINBACH¹, O. STEZOWSKI²¹, S. SZILNER³, B. SZPAK¹⁴, Ch. THEISEN¹³, C. UR⁵, J.J. VALIENTE-DOBÓN², V. VANDONE⁷, A. VOGT¹ und A. WIENS¹ — ¹Institut für Kernphysik, Universität zu Köln, 50937 Köln, Germany — ²Istituto Nazionale di Fisica Nucleare, Laboratori Nazionali di Legnaro, I-35020 Legnaro, Italy — ³Ruder Boskovic Institute, HR-10002 Zagreb, Croatia — ⁴Dipartimento di Fisica e Astronomia, Università di Padova, I-35131 Padova, Italy — ⁵Istituto Nazionale di Fisica Nucleare, Sezione di Padova, I-35131 Padova, Italy — ⁶Department of Physics, University of Surrey, Guildford, Surrey GU2 7XH, Uni-

ted Kingdom — ⁷Dipartimento di Fisica, Università di Milano and INFN Sezione di Milano, I-20133 Milano, Italy — ⁸CEA Saclay, Service de Physique Nucléaire, F-91191 Gif-sur-Yvette, France — ⁹Centre de Spectrométrie Nucléaire et de Spectrométrie de Masse – CSNSM, CNRS/IN2P3 and Univ. Paris-Sud, F-91405 Orsay Campus, France — ¹⁰Instituto de Fisica Corpuscular, CSIC-Universidad de Valencia, E-46071 Valencia, Spain — ¹¹Department of Physics and Astronomy, Uppsala University, SE-75121 Uppsala, Sweden — ¹²Department of Physics, University of Oslo, P.O. Box 1048 Blindern, N-0316 Oslo, Norway. — ¹³Institut de Recherche sur les lois Fondamentales de l'Univers – IRFU, CEA/DSM, Centre CEA de Saclay, F-91191 Gif-sur-Yvette Cedex, France — ¹⁴Henryk Niewodniczanski Institute of Nuclear Physics PAN, PL-31342 Krakow, Poland — ¹⁵Oliver Lodge Laboratory, The University of Liverpool, Liverpool, L69 7ZE, UK — ¹⁶Instituto de Estructura de la Materia, CSIC, Madrid, E-28006 Madrid, Spain — ¹⁷Nuclear Physics Research Group, University of the West of Scotland, High Street, Paisley, PA1 2BE, Scotland, UK — ¹⁸Dipartimento di Fisica Teorica dell'Università di Torino and INFN, I-10125 Torino, Italy — ¹⁹Laboratorio de Radiaciones Ionizantes, Universidad de Salamanca, E-37008 Salamanca, Spain — ²⁰Department of Physics and Astronomy, Uppsala University, SE-75120 Uppsala, Sweden — ²¹Université de Lyon, Université Lyon-1, CNRS/IN2P3, UMR5822, IPNL, F-69622 Villeurbanne Cedex, France — ²²USIAS – Université de Strasbourg, IPHC-CNRS, F-67037 Strasbourg Cedex 2, France. — ²³GANIL, CEA/DSM-CNRS/IN2P3, F-14076, Caen, France. — ²⁴RIKEN Nishina Center, Wako, 351-0198 Saitama, Japan.

Koll 32: LUNA-Kollaboration

MARIALUISA ALIOTTA¹¹, DANIEL BEMMERER¹, ANDREAS BEST⁶, AXEL BOELTZIG⁶, CARLO BROGGINI², CARLO BRUNO¹¹, ANTONIO CACIOLLI², FRANCESCA CAVANNA⁴, GIOVANNI CIANI¹³, PIETRO CORVISIERO⁴, TOM DAVINSON¹¹, ROSANNA DEPALO^{2,1}, G D'ERASMO¹³, ANTONINO DI LEVA⁸, ZOLTAN ELEKES⁵, FEDERICO FERRARO⁴, E FIORE¹³, ALBA FORMICOLA⁶, ZSOLT FÜLÖP⁵, GIAMPIERO GERVINO⁷, ALESSANDRA GUGLIELMETTI³, CARLO GUSTAVINO¹², GYÖRGY GYÜRKY⁵, GIANLUCA IMBRIANI⁸, MATTHIAS JUNKER⁶, ROBERTO MENEGAZZO², VIVIAMNA MOSSA¹³, FRANCESCA PANTALEO¹³, VINCENZO PATICCHIO¹³, R PERRINO¹³, PAOLO PRATI⁴, VINCENZO ROCA⁸, L SCHIAVULLI¹³, DAVID SCOTT¹¹, ENDRE SOMORJAI⁵, OSCAR STRANIERO¹⁰, FRANK STRIEDER⁹, TAMÁS SZÜCS¹, MARCELL TAKÁCS¹, DAVIDE TREZZI³ und A VALENTINI¹³ — ¹Helmholtz-Zentrum Dresden-Rossendorf (HZDR), 01328 Dresden, Germany — ²Istituto Nazionale di Fisica Nucleare (INFN), Sezione di Padova, Padova, Italy — ³Università di Milano and INFN Sezione di Milano, Italy — ⁴Università di Genova and INFN Sezione di Genova, Italy — ⁵Institute for Nuclear Research, Hungarian Academy of Sciences (MTA Atomki), Debrecen, Hungary — ⁶INFN, Laboratori Nazionali del Gran Sasso (LNGS), Assergi, Italy — ⁷Università di Torino and INFN Sezione di Torino, Torino, Italy — ⁸Università di Napoli "Federico II", and INFN Sezione di Napoli, Napoli, Italy — ⁹Institut für Experimentalphysik III, Ruhr-Universität Bochum, Bochum, Germany — ¹⁰Osservatorio Astronomico di Collurania, Teramo, and INFN Sezione di Napoli, Napoli, Italy — ¹¹University of Edinburgh, United Kingdom — ¹²INFN, Sezione di Roma 1, Roma, Italy — ¹³Università di Bari and INFN Sezione di Bari, Italy

Koll 33: Magix/MESA-Kollaboration

SABATO STEFANO CAIAZZA — Institut für Kernphysik - JGU, Mainz, Deutschland

Koll 34: MIXed-Kollaboration

FABIAN ALLMENDINGER², OLIVIER GRASDIJK³, WERNER HEIL¹, KLAUS JUNGMANN³, SERGEJ KARPUK¹, HANS-JOACHIM KRAUSE⁴, ANDREAS OFFENHÄUSER⁴, MARICEL REPETTO¹, ULRICH SCHMIDT², YURI SOBOLEV¹, LORENZ WILLMANN³ und STEFAN ZIMMER¹ — ¹Institut für Physik, Universität Mainz — ²Physikalisches Institut, Universität Heidelberg — ³University of Groningen, Niederlande — ⁴Peter Grünberg Institut, Forschungszentrum Jülich

Koll 35: P2-Kollaboration

KURT AULENBACHER¹, SEBASTIAN BAUNACK¹, NIKLAUS BERGER¹, RAZVAN BUCOVEANU², MICHAEL GERICKE³, KATHRIN GERZ¹, RUTH HERBERTZ¹, KRISHNA KUMAR⁴, FRANK MAAS^{1,5}, MATTHIAS MOLITOR¹, DAVID RODRIGUEZ PINEIRO^{1,5}, IURI SOROKIN¹, PAUL SOUDER⁶, HUBERT SPIESBERGER^{1,3}, ALEXEY TYUKIN¹, VALERIE TYUKIN¹, STEPHAN WEZORKE² und MARCO ZIMMERMANN¹ — ¹PRISMA Cluster of Excellence und Institut für Kernphysik, Johannes Gutenberg-Universität Mainz — ²PRISMA Cluster of Excellence

und Institut für Physik, Johannes Gutenberg-Universität Mainz — ³University of Manitoba, Winnipeg, MB R3T 2N2, Canada — ⁴Stony Brook University, Stony Brook, NY, USA — ⁵Helmholtz-Institut Mainz — ⁶Syracuse University, Syracuse, NY, USA

Koll 36: PANDA-Kollaboration

TOMASZ FIUTOWSKI¹, MAREK IDZIK¹, BARTOSZ MINDUR¹, DOMINIK PRZYBOROWSKI¹, KRZYSZTOF SWIENTEK¹, BHANUPRAKASH SINGH², P.N. DEPAK³, ARUN KULKARNI³, MIKHAIL BARNYAKOV⁴, ALEXANDER YU. BARNYAKOV⁴, KONSTANTIN BELOBORODOV⁴, ALEXANDER E. BLINOV⁴, VLADIMIR E. BLINOV⁴, VIKTOR S. BOBROVNIKOV⁴, SERGEY KONONOV⁴, EVGENIY A. KRAVCHENKO⁴, IVAN A. KUYANOV⁴, KARINA MARTIN⁴, ALEXEI P. ONUCHIN⁴, SERGEY SEREDNYAKOV⁴, ANDREI SOKOLOV⁴, YURY TIKHONOV⁴, SONGLIN LI⁵, ZHANKUI LI⁵, ZHIYU SUN⁵, HUSHAN XU⁵, GI-ANLUIGI BOCA⁶, SUSANNA COSTANZA⁶, PABLO GENOVA⁶, PAOLO MONTAGNA⁶, ALBERTO ROTONDI⁶, HELMUT SOHLBACH⁷, INGO AUGUSTIN⁸, RALPH BÖHM⁸, INTI LEHMANN⁸, DIANA NICMORUS MARINESCU⁸, LARS SCHMITT⁸, VICTOR VARENTSOV⁸, MEI BAI⁹, LUDOVICO BIANCHI⁹, MARKUS BÜSCHER⁹, LU CAO⁹, ARTUR CEBULLA⁹, DARIUSCH DEERMANN⁹, RENE DOSDALL⁹, SIMONE ESCH⁹, ALBRECHT GILLITZER⁹, ANDRÉ GOERRES⁹, FRANK GOLDENBAUM⁹, DIRK GRUNWALD⁹, ANDREAS HERTEN⁹, QIANG HU⁹, GÜNTHER KEMMERLING⁹, HARALD KLEINES⁹, ANDREAS LEHRACH⁹, RUDOLF MAIER⁹, ROBERT NELLEN⁹, HAROUTIOUN OHANNESIAN⁹, HENNER OHM⁹, SERGEY ORFANITSKI⁹, DIETER PRASUHN⁹, ELISABETTA PRENCIPE⁹, JENNIFER PÜTZ⁹, JAMES RITMAN⁹, SUSAN SCHADMAND⁹, JETTE SCHUMANN⁹, THOMAS SEFZICK⁹, VALERIY SERDYUK⁹, GÜNTHER STERZENBACH⁹, TOBIAS STOCKMANNS⁹, PETER WINTZ⁹, PETER WÜSTNER⁹, HUAGEN XU⁹, ELIZAVETA IAKOVLEVA¹⁰, IVAN KISEL¹⁰, GRIGORY KOZLOV¹⁰, IGOR KULAKOV¹⁰, MYKHAILO PUGACH¹⁰, MERLIN BÖHM¹¹, ALEXANDER BRITTING¹¹, WOLFGANG EYRICH¹¹, ALBERT LEHMANN¹¹, FRED UHLIG¹¹, KAMAL DUTTA¹², KUSHAL KALITA¹², VALENTINA AKISHINA¹³, MOHAMMAD AL-TURANY¹⁴, RAHUL ARORA¹⁴, ANASTASIOS BELIAS¹⁴, HARALD DEPPE¹⁴, ROMAN DZHYGADLO¹⁴, ANDRÉ EHRET¹⁴, HOLGER FLEMMING¹⁴, ANDREAS GERHARDT¹⁴, KLAUS GÖTZEN¹⁴, ANDRII GROMLIUK¹⁴, LUKAS GRUBER¹⁴, GRZEGORZ KALICY¹⁴, RADOSLAW KARABOWICZ¹⁴, RALF KLIEMT¹⁴, MARVIN KREBS¹⁴, JOCHEN KUNKEL¹⁴, UDO KURILLA¹⁴, DOROTHEE LEHMANN¹⁴, SVEN LÖCHNER¹⁴, JOST LÜHNING¹⁴, ULI LYNN¹⁴, HERBERT ORTH¹⁴, MARIA PATSYUK¹⁴, KLAUS PETERS¹⁴, NAMI SAITO¹⁴, TAKEHIKO SAITO¹⁴, GEORG SCHEPERS¹⁴, CHRISTIAN JOACHIM SCHMIDT¹⁴, CARSTEN SCHWARZ¹⁴, JOACHIM SCHWIENING¹⁴, ALEXANDER TÄSCHNER¹⁴, MICHAEL TRAXLER¹⁴, CAHIT UGUR¹⁴, BERND VOSS¹⁴, PETER WIECZOREK¹⁴, ANDREA WILMS¹⁴, MARKO ZÜHLSDORF¹⁴, MAKSYM ZYZAK¹⁴, HEYBAT AHMADI¹⁵, SAMER AHMED¹⁵, SEBASTIAN BLESER¹⁵, LUIGI CAPOZZA¹⁵, MATTEO CARDINALI¹⁵, ALAA DEBEYSSI¹⁵, MALTE DEISEROTH¹⁵, FLORIAN FELDBAUER¹⁵, MIRIAM FRITSCH¹⁵, BERTOLD FRÖHLICH¹⁵, PROMETEUS JASINSKI¹⁵, DONGHEE KANG¹⁵, DMITRY KHANEFT¹⁵, ROMAN KLASEN¹⁵, HANS HEINRICH LEITHOFF¹⁵, DEXU LIN¹⁵, FRANK MAAS¹⁵, STEPHAN MALDANER¹⁵, MARTINEZ-ROJO MARTA¹⁵, MATHIAS MICHEL¹⁵, MARÍA CARMEN MORA ESPÍ¹⁵, CRISTINA MORALES MORALES¹⁵, CHRISTOF MOTZKO¹⁵, FRANK NERLING¹⁵, OLIVER NOLL¹⁵, STEFAN PFLÜGER¹⁵, ANDREAS PITKA¹⁵, DAVID RODRÍGUEZ PIÑEIRO¹⁵, ALICIA SANCHEZ-LORENTE¹⁵, MARCELL STEINEN¹⁵, ROSERIO VALENTE¹⁵, TOBIAS WEBER¹⁵, MANUEL ZAMBRANA¹⁵, IRIS ZIMMERMANN¹⁵, MALGORZATA KISTRYN¹⁶, KRZYSZTOF KORCZY¹⁶, ADAM KOZELA¹⁶, PAWEŁ KULESSA¹⁶, PIOTR LEDBOWICZ¹⁶, KRZYSZTOF PYSZ¹⁶, WOLFGANG SCHÄFER¹⁶, ANTONI SZCZUREK¹⁶, DAN KAPLAN¹⁷, SADHANA DASH¹⁸, MANOJ JADHAV¹⁸, SHYAM KUMAR¹⁸, P. SARIN¹⁸, RAGHAVA VARMA¹⁸, AJAY KUMAR¹⁹, ANKHI ROY¹⁹, RAGHUNATH SAHOO¹⁹, PAOLA GIANOTTI²⁰, CARLO GUARALDO²⁰, VINCENZO LUCHERINI²⁰, VALENTINO RIGATO²¹, ANDREA BERSANI²², GIANANGELO BRACCO²², MARIO MACRI²², RENZO F. PARODI²², DANIELA CALVO²³, SILVIA COLI²³, PAOLO DE REMIGIS²³, ALESSANDRA FILIPPI²³, GIUSEPPE GIRAUDO²³, STEFANO LUSSO²³, GIOVANNI MAZZA²³, MARCO MIGNONE²³, ANGELO RIVETTI²³, RICHARD WHEADON²³, LAURA ZOTTI²³, ERMIAS ATOMSSA²⁴, THIERRY HENNINO²⁴, RONALD KUNNE²⁴, BINSONG MA²⁴, DOMINIQUE MARCHAND²⁴, SARO ONG²⁴, BEATRICE RAMSTEIN²⁴, JACQUES VAN DE WIELE²⁴, YING WANG²⁴, VICTOR ABRAMOV²⁵, NIKOLAY BELIKOV²⁵, SOFIA BUKREEVA²⁵, ANDREY DAVIDENKO²⁵, ANATOLY DEREVSKICH²⁵, YURY GONCHARENKO²⁵, VYACHESLAV GRISHIN²⁵, VASILY KACHANOV²⁵, VLADIMIR KORMILITSIN²⁵, ANDREI LEVIN²⁵, YURY MELNIK²⁵, NIKOLAY MINAEV²⁵, VASILY MOCHALOV²⁵, DMITRY MOROZOV²⁵, LARISA NOGACH²⁵, STANISLAV POSLAVSKIY²⁵, AN-

DREY RYAZANTSEV²⁵, SERGEY RYZHIKOV²⁵, PAVEL SEMENOV²⁵, IGOR SHEIN²⁵, ANDREY UZUNIAN²⁵, ALEXANDER VASILIEV²⁵, ALEXANDER YAKUTIN²⁵, VLADIMIR BALANUTSA²⁶, PAVEL BALANUTSA²⁶, VIACHESLAV CHERNETSKY²⁶, ALEXEY DEMEKHIN²⁶, ANATOLY DOLGOLENKO²⁶, PAVEL FEDORETS²⁶, ALEXANDER GERASIMOV²⁶, VLADIMIR GORYACHEV²⁶, BEIJIANG LIU²⁷, HUAIMIN LIU²⁷, ZHENAN LIU²⁷, XIAOYAN SHEN²⁷, CHUNJIE WANG²⁷, JINGZHOU ZHAO²⁷, MARIO BRAGADIREANU²⁸, MIHAI CAPRINI²⁸, DAN PANTEA²⁸, DOREL PIETREANU²⁸, MATEI-EUGENE VASILE²⁸, JACEK BIERNAT²⁹, SEDIGHEH JOWZAAEE²⁹, BOGUSLAW KAMYS²⁹, STANISLAW KISTRYN²⁹, GRZEGORZ KORCYL²⁹, WOJCIECH KRZEMIEN²⁹, ANDRZEJ MAGIERA²⁹, PAWEŁ MOSKAL²⁹, MAREK PALKA²⁹, ANDRZEJ PYSZNIAK²⁹, ZBIGNIEW RUDY²⁹, PIOTR SALABURA²⁹, JERZY SMYRSKI²⁹, PAWEŁ STRZEMPEK²⁹, ALEKSANDRA WRONSKA²⁹, EGLE TOMASI-GUSTAFSSON³⁰, PATRICK ACHENBACH³¹, OLIVER CORELL³¹, ACHIM DENIG³¹, MICHAEL DISTLER³¹, MATTHIAS HOEK³¹, ANASTASIA KARAVDINA³¹, WERNER LAUTH³¹, ZHIQING LIU³¹, HAROLD MERKEL³¹, ULRICH MÜLLER³¹, JOSEF POCHODZALLA³¹, SALVADOR SANCHEZ³¹, SOEREN SCHLIMME³¹, CONCETTINA SFIENTI³¹, MICHAELA THIEL³¹, SIMONE BIANCO³², KLIM BIGUENKO³², DANIEL BREMER³², KAI-TOMAS BRINKMANN³², VALENTINO DI PIETRO³², STEFAN DIEHL³², VALERY DORMENEV³², PETER DREXLER³², MICHAEL DÜREN³², TOBIAS EISSNER³², ERIK ETZELMÜLLER³², KLAUS FÖHL³², MARTIN GALUSKA³², ERIC GUTZ³², CHRISTOPHER HAHN³², AVETIK HAYRAPETYAN³², MARTIN KESSELKAUL³², WOLFGANG KÜHN³², TILL KUSKE³², JENS SÖREN LANGE³², YUTIE LIANG³², OLIVER MERLE³², VOLKER METAG³², DANIEL MÜHLHEIM³², MARIANA NANOV³², SVETLANA NAZARENKO³², RAINER NOVOTNY³², TOMMASO QUAGLI³², SIMON REITER³², JULIAN RIEKE³², CHRISTOPH ROSENBAUM³², MUSTAFA SCHMIDT³², ROBERT SCHNELL³², HASKO STENZEL³², ULRICH THÖRING³², THOMAS ULLRICH³², MILAN NICOLAS WAGNER³², THOMAS WASEM³², BENJAMIN WOHLFAHRT³², HANS-GEORG ZAUNICK³², TORBJÖRN BÄCK³³, BO CEDERWALL³³, ALEXANDROS APOSTOLOU³⁴, MOHAMMAD BABAI³⁴, MYROSLAV KAVATSYUK³⁴, PETER J. J. LEMMENS³⁴, MICHEL LINDEMULDER³⁴, HERBERT LOEHNER³⁴, JOHAN MESSCHENDORP³⁴, PETER SCHAKEL³⁴, HENK SMIT³⁴, MARCEL TIEMENS³⁴, JACCO C. VAN DER WEELE³⁴, RICK VEENSTRA³⁴, SOLMAZ VEJDANI³⁴, KEVIN FISSUM³⁵, KURT HANSEN³⁵, LENNART ISAKSSON³⁵, MAGNUS LUNDIN³⁵, BENT SCHRÖDER³⁵, ALEXANDER BOUKHAROV³⁶, OLEG MALYSHEV³⁶, IVAN MARISHEV³⁶, ARKADIUSZ CHLOPIK³⁷, GRAZIANA KESIK³⁷, DMYTRO MELNYCHUK³⁷, BRONISLAW SLOWINSKI³⁷, ANDRZEJ TRZCINSKI³⁷, MARCIN WOJCIECHOWSKI³⁷, SLAWOMIR WRONKA³⁷, BOGUSLAW ZWIEGLINSKI³⁷, STANISLAV BELOSTOTSKI³⁸, GENNADY GAVRILOV³⁸, ANTONI IZOTOV³⁸, SERGEY MANAENKOV³⁸, OLEG MIKLUKHO³⁸, DENIS VERETENNIKOV³⁸, ANDREY ZHDANOV³⁸, SEAN DOBBS³⁹, KAM SETH³⁹, AMIRAN TOMARADZE³⁹, TING XIAO³⁹, VINAY CHANDRATRE⁴⁰, VIVEK DATAR⁴⁰, DIPANWITA DUTTA⁴⁰, VISHWAJEET JHA⁴⁰, HARPHOOI KUMAWAT⁴⁰, A.K. MOHANTY⁴⁰, ARPIT PARMAR⁴⁰, BIDYUT ROY⁴⁰, STEFAN BRUNNER⁴¹, PAUL BÜHLER⁴¹, JOHANN MARTON⁴¹, DOMINIK STEINSCHADEN⁴¹, KEN SUZUKI⁴¹, EBERHARD WIDMANN⁴¹, JOHANN ZMESKAL⁴¹, BHAVIN PATEL⁴², ANATOLI KASHCHUK⁴³, OLGA LEVITSKAYA⁴³, YURIY NARYSHKIN⁴³, KIRILL SUVOROV⁴³, FRANCESCA BALESTRA⁴⁴, FELICE IAZZI⁴⁴, RICCARDO INTROZZI⁴⁴, ANDREA LAVAGNO⁴⁴, JONATHAN OLAVE⁴⁴, HANNAN YOUNIS⁴⁴, ANDREI FEDOROV⁴⁵, MIKHAIL KORJIK⁴⁵, OLEG MISSEVITCH⁴⁵, MARKUS BALL⁴⁶, REINHARD BECK⁴⁶, CHRISTIAN HAMMANN⁴⁶, DAVID KAISER⁴⁶, BERNHARD KETZER⁴⁶, MATTHIAS KUBE⁴⁶, PHILIPP MAHLBERG⁴⁶, MERLIN ROSSBACH⁴⁶, CHRISTOPH SCHMIDT⁴⁶, ROMAN SCHMITZ⁴⁶, ULRIKE THOMA⁴⁶, MARTIN URBAN⁴⁶, DIETER WALTHER⁴⁶, CHRISTOPH WENDEL⁴⁶, ANDREW WILSON⁴⁶, THOMAS WÜRSCHIG⁴⁶, VINODKUMAR POTHOJI CHACKARA⁴⁷, AJAY KUMAR RAI⁴⁸, UTPAL ROY⁴⁹, KAROLY MAKONYI⁵⁰, MARKUS PRESTON⁵⁰, PER-ERIK TEGNER⁵⁰, KLAS MARCKS VON WÜRTEMBERG⁵⁰, DIRK WÖLBING⁵⁰, KHANCHAI KHOSONTHONGKEE⁵¹, CHINORAT KOBDA⁵¹, AYUT LIMPHIRAT⁵¹, PORNRAD SRISAWAD⁵¹, YUPENG YAN⁵¹, IGOR KONOROV⁵², STEPHAN PAUL⁵², BJÖRN GALNANDER⁵³, ANDREA BIANCONI⁵⁴, DIEGO BETTONI⁵⁵, VITTORIO CARASSITI⁵⁵, ANGELO COTTA RAMUSINO⁵⁵, PIETRO DALPIAZ⁵⁵, ALESSANDRO DRAGO⁵⁵, ELISA FIORAVANTI⁵⁵, ISABELLA GARZIA⁵⁵, MAURO SAVRIE⁵⁵, GIULIO STANCARI⁵⁵, ANTONIO AMOROSO⁵⁶, MARIA PIA BUSSA⁵⁶, LUIGI BUSSO⁵⁶, FRANCESCA DE MORI⁵⁶, MARCO DESTEFANIS⁵⁶, LUCIANO FAVA⁵⁶, LIVIO FERRERO⁵⁶, MICHELA GRECO⁵⁶, JIFENG HU⁵⁶, LIA LAVEZZI⁵⁶, MARCO MAGGIORA⁵⁶, GIOVANNI MANISCALCO⁵⁶, SIMONETTA MARCELLO⁵⁶, STEFANO SOSIO⁵⁶, STEFANO SPATARO⁵⁶, RENATO BIRSA⁵⁷, FRANCO BRADAMANTE⁵⁷, ANDREA BRESSAN⁵⁷,

ANNA MARTIN⁵⁷, WERNER ERNI⁵⁸, IRAKLI KESHELASHVILI⁵⁸, BERND KRUSCHE⁵⁸, MICHAEL STEINACHER⁵⁸, NATALIE WALFORD⁵⁸, MALTE ALBRECHT⁵⁹, MARKUS BACKWINKEL⁵⁹, THORSTEN ERLEN⁵⁹, MARIO FINK⁵⁹, FRITZ-HERBERT HEINSIUS⁵⁹, THOMAS HELD⁵⁹, TOBIAS HOLTmann⁵⁹, SVEN JASPER⁵⁹, IMAN KESHK⁵⁹, HELMUT KOCH⁵⁹, BERTRAM KOPF⁵⁹, GERIT KUHL⁵⁹, MARKUS KUHLMANN⁵⁹, MIRIAM KÜMMEL⁵⁹, STEPHAN LEIBER⁵⁹, MICHAEL LEYHE⁵⁹, MAXIM MIKIRTYCHANTS⁵⁹, PATRICK MUSIOL⁵⁹, ARBER MUSTAFA⁵⁹, MARC PELIZÄUS⁵⁹, JULIAN PYCHY⁵⁹, MARVIN RICHTER⁵⁹, CLAUDIOUS SCHNIER⁵⁹, TORSTEN SCHRÖDER⁵⁹, CATHRINA SOWA⁵⁹, MATTIAS STEINKE⁵⁹, TOBIAS TRIFFTERER⁵⁹, ULRICH WIEDNER⁵⁹, JOSE DIAZ⁶⁰, HEINZ CLEMENT⁶¹, DEREK BRANFORD⁶², DEREK GLAZIER⁶², DANIEL WATTS⁶², PHIL WOODS⁶², DAVID IRELAND⁶³, GÜNTHER ROSNER⁶³, BJOERN SEITZ⁶³, BRUCE YABSLEY⁶⁴, PAWEŁ BRANDYS⁶⁵, WOJCIECH CZYZYCKI⁶⁵, MARIUSZ DOMAGALA⁶⁵, GRZEGORZ FILO⁶⁵, MICHAŁ HAWRYLUK⁶⁵, JERZY JAWOROWSKI⁶⁵, MARIUSZ KRAWCZYK⁶⁵, DOMINIK KWIAŁKOWSKI⁶⁵, EDWARD LISOWSKI⁶⁵, FILIP LISOWSKI⁶⁵, MATEUSZ MICHAŁEK⁶⁵, PIOTR POZNAŃSKI⁶⁵, JOANNA PŁAZEK⁶⁵, LI CALDEIRA BALKESTAHL⁶⁶, HANS CALEN⁶⁶, KJELL FRANSSON⁶⁶, WALTER IKEGAMI ANDERSSON⁶⁶, TORD JOHANSSON⁶⁶, ANDRZEJ KUPSC⁶⁶, PAWEŁ MARCINIEWSKI⁶⁶, MICHAŁ PAPENBROCK⁶⁶, JOACHIM PETTERSSON⁶⁶, KARIN SCHÖNNING⁶⁶, MAGNUS WOLKE⁶⁶, JOZEF ZŁOMANCKU⁶⁶, SUBODH GODRE⁶⁷, VIKTOR ABAZOV⁶⁸, GENNADY ALEXEEV⁶⁸, VALENTIN A. AREFIEV⁶⁸, VALERY ASTAKHOV⁶⁸, MIKAIL YU. BARABANOV⁶⁸, BORIS V. BATYUNYA⁶⁸, YURI DAVYDOV⁶⁸, VALERY KH. DODOKHOV⁶⁸, ALEXANDER EFREMOV⁶⁸, ALEXANDER FECHTCHENKO⁶⁸, ANATOLY G. FEDUNOV⁶⁸, AIDA GALOYAN⁶⁸, SMBAT GRIGORYAN⁶⁸, EVGENY K. KOSHURNIKOV⁶⁸, YURI YU. LOBANOV⁶⁸, VIKTOR I. LOBANOV⁶⁸, ALEXANDER F. MAKAROV⁶⁸, LYUDMILA V. MALININA⁶⁸, VLADIMIR MALYSHEV⁶⁸, ALEXANDER G. OLSHEVSKIY⁶⁸, EKATERINA PEREVALOVA⁶⁸, ALEXEY A. PISKUN⁶⁸, TIMUR POCHEPETSOV⁶⁸, GIL PONTECORVO⁶⁸, VALERY RODIONOV⁶⁸, YURY ROGOV⁶⁸, ROMAN SALMIN⁶⁸, ALEXANDER SAMARTSEV⁶⁸, MIKHAIL G. SAPOZHNIKOV⁶⁸, GALINA SHABRATOVA⁶⁸, NIKOLAI B. SKACHKOV⁶⁸, ANNA N. SKACHKOVA⁶⁸, EVGENY A. STROKOVSKY⁶⁸, MAIS SULEIMANOV⁶⁸, RUSLAN TESHEV⁶⁸, VALERY TOKMENIN⁶⁸, VLADIMIR UZHINSKY⁶⁸, ALEXANDRE VODOPIANOV⁶⁸, SERGEY A. ZAPOROZHETS⁶⁸, NIKOLAI I. ZHURAVLEV⁶⁸, ANDREI G. ZORIN⁶⁸, SILKE GRIESER⁶⁹, ANN-KATRIN HERGEMÖLLER⁶⁹, BENJAMIN HETZ⁶⁹, ALFONS KHOUKAZ⁶⁹ und JOHANNES P. WESSELS⁶⁹ — ¹AGH, University of Science and Technology, Cracow, Poland — ²Aligarh Muslim University, Physics Department, Aligarh, India — ³Birla Institute of Technology and Science - Pilani, K.K. Birla Goa Campus, Goa, India — ⁴Budker Institute of Nuclear Physics, Novosibirsk, Russia — ⁵Chinese Academy of Science, Institute of Modern Physics, Lanzhou, China — ⁶Dipartimento di Fisica, Università di Pavia, INFN Sezione di Pavia, Pavia, Italy — ⁷Fachhochschule Südwestfalen, Iserlohn, Germany — ⁸FAIR, Facility for Antiproton and Ion Research in Europe, Darmstadt, Germany — ⁹Forschungszentrum Jülich, Institut für Kernphysik, Jülich, Germany — ¹⁰Frankfurt Institute for Advanced Studies, Frankfurt, Germany — ¹¹Friedrich Alexander Universität Erlangen-Nürnberg, Erlangen, Germany — ¹²Gauhati University, Physics Department, Guwahati, India — ¹³Goethe University, Institut für Kernphysik, Frankfurt, Germany — ¹⁴GSI Helmholtzzentrum für Schwerionenforschung GmbH, Darmstadt, Germany — ¹⁵Helmholtz-Institut Mainz, Mainz, Germany — ¹⁶IFJ, Institute of Nuclear Physics PAN, Cracow, Poland — ¹⁷IIT, Illinois Institute of Technology, Chicago, U.S.A. — ¹⁸Indian Institute of Technology Bombay, Department of Physics, Mumbai, India — ¹⁹Indian Institute of Technology Indore, School of Science, Indore, India — ²⁰INFN Laboratori Nazionali di Frascati, Frascati, Italy — ²¹INFN Laboratori Nazionali di Legnaro, Legnaro, Italy — ²²INFN Sezione di Genova, Genova, Italy — ²³INFN Sezione di Torino, Torino, Italy — ²⁴Institut de Physique Nucléaire dzOrsay (UMR8608), CNRS/IN2P3 and Université Paris-sud, Orsay, France — ²⁵Institute for High Energy Physics, Protvino, Russia — ²⁶Institute for Theoretical and Experimental Physics, Moscow, Russia — ²⁷Institute of High Energy Physics, Chinese Academy of Sciences, Beijing, China — ²⁸Institutul National de C&D pentru Fizica si Inginerie Nucleara "Horia Hulubei", Bucarest-Magurele, Romania — ²⁹Instytut Fizyki, Uniwersytet Jagielloński, Cracow, Poland — ³⁰IRFU,SPHN, CEA Saclay, Saclay, France — ³¹Johannes Gutenberg-Universität, Institut für Kernphysik, Mainz, Germany — ³²Justus Liebig-Universität Gießen II, Physikalisches Institut, Gießen, Germany — ³³Kungliga Tekniska Högskolan, Stockholm, Sweden — ³⁴KVI-Center for Advanced Radiation Technology (CART), University of Groningen, Groningen, Netherlands — ³⁵Lunds Universitet, Department of

Physics, Lund, Sweden — ³⁶Moscow Power Engineering Institute, Moscow, Russia — ³⁷National Centre for Nuclear Research, Warsaw, Poland — ³⁸National Research Centre "Kurchatov Institute" B.P.KONSTANTINOV PETERSBURG NUCLEAR PHYSICS INSTITUTE, Gatchina, St. Petersburg, Russia — ³⁹Northwestern University, Evanston, U.S.A. — ⁴⁰Nuclear Physics Division, Bhabha Atomic Research Centre, Mumbai, India — ⁴¹Österreichische Akademie der Wissenschaften, Stefan Meyer Institut für Subatomare Physik, Wien, Austria — ⁴²P.D. Patel Institute of Applied Science, Department of Physical Sciences, Changal, India — ⁴³Petersburg Nuclear Physics Institute of Russian Academy of Science, Gatchina, St. Petersburg, Russia — ⁴⁴Politecnico di Torino and INFN Sezione di Torino, Torino, Italy — ⁴⁵Research Institute for Nuclear Problems, Belarus State University, Minsk, Belarus — ⁴⁶Rheinische Friedrich-Wilhelms-Universität Bonn, Bonn, Germany — ⁴⁷Sardar Patel University, Physics Department, Vallabh Vidynagar, India — ⁴⁸Sardar Vallabhbhai National Institute of Technology, Applied Physics Department, Surat, India — ⁴⁹Siksha-Bhavana, Visva-Bharati, WB, Santiniketan, India — ⁵⁰Stockholms Universitet, Stockholm, Sweden — ⁵¹Suranaree University of Technology, Nakhon Ratchasima, Thailand — ⁵²Technische Universität München, München, Germany — ⁵³The Svedberg Laboratory, Uppsala, Sweden — ⁵⁴Università di Brescia, Brescia, Italy — ⁵⁵Università di Ferrara and INFN Sezione di Ferrara, Ferrara, Italy — ⁵⁶Università di Torino and INFN Sezione di Torino, Torino, Italy — ⁵⁷Università di Trieste and INFN Sezione di Trieste, Trieste, Italy — ⁵⁸Universität Basel, Basel, Switzerland — ⁵⁹Universität Bochum, Institut für Experimentalphysik I, Bochum, Germany — ⁶⁰Universitat de Valencia Dpto. de Física Atómica, Molecular y Nuclear, Valencia, Spain — ⁶¹Universität Tübingen, Tübingen, Germany — ⁶²University of Edinburgh, Edinburgh, United Kingdom — ⁶³University of Glasgow, Glasgow, United Kingdom — ⁶⁴University of Sidney, School of Physics, Sidney, Australia — ⁶⁵University of Technology, Institute of Applied Informatics, Cracow, Poland — ⁶⁶Uppsala Universitet, Institutionen för fysik och astronomi, Uppsala, Sweden — ⁶⁷Veer Narmad South Gujarat University, Department of Physics, Surat, India — ⁶⁸Veksler-Baldin Laboratory of High Energies (VBLHE), Joint Institute for Nuclear Research, Dubna, Russia — ⁶⁹Westfälische Wilhelms-Universität Münster, Münster, Germany

Koll 37: PERC-Kollaboration

HARTMUT ABELE¹, MARCUS BECK², DIRK DUBBERS³, HARALD FILLUNGER¹, WERNER HEIL², ERWIN JERICHA¹, JENS KLENKE⁴, MICHAEL KLOPF¹, GERTRUD KONRAD^{1,5}, THORSTEN LAUER⁶, WILFRIED MACH¹, BASTIAN MÄRKISCH⁶, REINHARD MAIX⁶, LUKAS RAFFELT^{3,6}, NATALYIA REBROVA³, CHRISTOPH ROICK⁶, HEIKO SAUL¹, ULRICH SCHMIDT³, TORSTEN SOLDNER⁷, CAMILLE THEROINE⁶, XIANGZUN WANG¹, ROMAIN VIROT⁷, CARMEN ZIENER³ und OLIVER ZIMMER⁷ — ¹Atominstitut, Technische Universität Wien — ²Universität Mainz — ³Physikalisches Institut, Universität Heidelberg — ⁴Forschungs-Neutronenquelle Heinz Maier-Leibniz (FRM II) — ⁵Stefan Meyer Institut, ÖAW, Wien — ⁶Physik-Department, Technische Universität München — ⁷Institut Laue-Langevin

Koll 38: R3B-Kollaboration

MOHAMMAD AL-TURANY^{1,2}, GEORGY ALKHAZOV³, HECTOR ALVAREZ-POL⁴, LEYLA ATAR⁵, LAURENT AUDOUIN^{6,7}, THOMAS AUMANN^{5,1}, VLADIMIR AVDEICHIKOV⁸, JAMES BAILEY¹, DMITRI BALIN³, ZORAN BASRAK⁹, LEONID BATIST³, CLEMENS BEINRUCKER¹⁰, THOMAS BEL¹, GILBERT BELIER¹¹, DANIEL BEMMERER¹², MICHAEL BENDEL¹³, JOSE BENLIURE⁴, CARLOS BERTULANI¹⁴, ANDREY BEZBAKH¹⁵, KONSTANZE BORETZKY¹, MARÍA JOSÉ BORGE¹⁶, MARCELLO BORRI¹⁷, PABLO CABANELAS EIRAS⁴, CHRISTOPH CAESAR¹, ENRIQUE CASAREJOS¹⁸, WILTON CATFORD¹⁹, JOAKIM CEDERKALL⁸, MARIELLE CHARTIER²⁰, AUDREY CHATILLON¹¹, MADALIN CHERCIU²¹, LEONID CHULKOV²², ANNA CORSI²³, DOLORES CORTINA-GIL⁴, THOMAS COWAN^{12,24}, RAQUEL CRESPO²⁵, THOMAS DAVINSON²⁶, ARNOLDAS DELTUVA²⁷, GREGOR DENTINGER⁵, ALEXANDER DOBROVOLSKY³, CHRISTIAAN DOUMA²⁸, MARC DUCHÈNE⁵, PALOMA DÍAZ FERNÁNDEZ²⁹, PETER EGELHOF¹, ASMAA EL MOSLEH¹, ZOLTAN ELEKES³⁰, JOACHIM ENDERS⁵, ANNE ENDRES¹⁰, PHILIPP ERBACHER¹⁰, ALFREDO ESTRADE²⁶, CLAES FAHLANDER⁸, FABIO FARINON¹, GUILLERMO FERNÁNDEZ MARTÍNEZ⁵, ANDREY FETISOV³, ANDREY FOMICHEV¹⁵, LUIS FRAILE³¹, MARTIN FREER³², DANIEL GALAVIZ REDONDO³³, EDUARDO GARRIDO¹⁶, ALEJANDRO GARZON CAMACHO¹⁶, IGOR GASPARIC⁹, GENNADII GAVRILOV³, HANS GEISSEL¹, PETROV GENNADY³, JÜRGEN GERL¹, ROMAN GERNHÄUSER¹³, ALAIN GILLIBERT²³, JAN GLORIUS¹⁰,

MIKHAIL GOLOVKOV¹⁵, VICTOR GOLOVTSOV³, PAVEL GOLUBEV⁸, THOMAS GORBINET⁶, ALEXANDER GORSHKOV¹⁵, ALAN GRANT¹⁷, NIKOLAY GRUZINSKY³, KATHRIN GöBEL¹⁰, MARIA HAIDUC²¹, MUHSIN HARAKEH²⁸, ANNA-LENA HARTIG⁵, TANJA HEFTRICH¹⁰, MICHAEL HEIL¹, SEBASTIAN HEIL⁵, MARCEL HEINE⁵, ANDREAS HEINZ²⁹, BENJAMIN HEISS¹³, ANDREAS HENNIG³⁴, CORINNA HENRICH⁵, ANA HENRIQUES³³, FABIAN HIMBURG¹, MATTHIAS HOLL⁵, ILJA HOMM⁵, ANDREA HORVAT⁵, ÁKOS HORVÁTH³⁵, ALEXANDER HUFNAGEL⁵, ALEXANDER IGNATOV⁵, STOYANKA ILIEVA⁵, ALEXANDER INGLESI³, JOHANN ISAAK³⁶, JACOB JOHANSEN⁵, HÅKAN JOHANSSON²⁹, BJÖRN JONSON²⁹, JULIAN KAHLBOW⁵, NASSER KALANTAR-NAYESTANAKI²⁸, RITUPARNA KANUNGO³⁷, ALEKSANDRA KELIC-HEIL¹, ALEXEY KHANZADEEV³, OLEG KISELEV¹, ROBERT KISSEL⁵, PHILIPP KLENZE¹³, MOSCHOS KOGIMTZIS¹⁷, ANN-KATHRIN KOPP¹, GUERMAN KOROLEV³, ALEXEY KORSHENINNIKOV²², WOLFRAM KORTEN²³, NIKOLAI KOZLENKO³, ATTILA KRASZNAHORKAY³⁰, DMYTRO KRESAN¹, ANATOLY KRVISHCH³, SERGEY KRUPKO¹⁵, THORSTEN KRÖLL⁵, NIKOLAUS KURZ¹, EVGENY KUZMIN²², VIA-CHESLAV KUZNETSOV³, DANIEL KÖRPER¹, MARC LABICHE¹⁷, CHRISTOPH LANGER^{10,1}, BENOIT LAURENT¹¹, IAN LAZARUS¹⁷, ARNAUD LE FÈVRE¹, CLAUDIA LEDERER²⁶, CHRISTOPHER LEHR⁵, ROY LEMMON¹⁷, ALINKA LEPINE-SZILY³⁸, SIMON LINDBERG²⁹, SCOTT LINDSAY²⁰, YURI LITVINOV¹, BASTIAN LÖHER^{5,1}, EVGENY MAEV³, DMITRII MAISUZENKO³, IRENE MARROQUÍN ALONSO¹⁶, MICHAEL MATHY⁵, JAN MAYER³⁴, KENJIRO MIKI⁵, HOSSEIN MOEINI²⁸, ALINA MOVSESYAN⁵, DENNIS MÜCHER¹³, ENRIQUE NACHER¹⁶, MOHAMMAD ALI NAJAFI²⁸, LARS NETTERDON³⁴, EVGENII NIKOLSKII²², THOMAS NILSSON²⁹, CHIARA NOCIFORO¹, GÖRAN NYMAN²⁹, ALEXANDRE OBERTELLI²³, EVGENY ORISHCHIN³, VALERII PANIN⁵, STEFANOS PASCHALIS⁵, ALBERTO PELIZZA²⁹, ANGEL PEREA¹⁶, MARINA PETRI⁵, FREDERIC PFEIL¹, SIMON PICKSTONE³⁴, BENJAMIN PIETRAS⁴, STEPHANE PIETRI¹, RALF PLAG¹, MORITZ POHL¹⁰, EMAUEL POLLACCO²³, PETRU-MIHAI POTLOG²¹, WILLIAM POWELL²⁰, VICTOR PUCKNELL¹⁷, SEBASTIAN REICHERT¹³, REINE REIFARTH¹⁰, TOBIAS REINHARDT²⁴, STEFAN REINICKE¹², PATRICK REMMELS¹³, HAN-BUM RHEE⁵, GUILLERMO RIBEIRO¹⁶, CATHERINE RIGOLLET²⁸, FLORIAN ROETHER¹, DOMINIC ROSSI^{5,1}, MARKO RÖDER^{12,24}, CLEMENTINE SANTAMARIA³⁹, VICTOR SARANTSEV³, DENIZ SAVRAN³⁶, HEIKO SCHEIT⁵, FABIA SCHINDLER⁵, PHILIPP SCHROCK^{5,1}, PHILIPP SCHÜSSLER¹, JOEL SILVA³⁶, HAIK SIMON¹, JOHANNES SIMON⁵, KERSTIN SONNABEND¹⁰, OLIVIER SORLIN⁴⁰, EMIL STAN²¹, SONJA STORCK⁵, DMYTRO SYMOCHKO⁵, INA SYNDIKUS⁵, JULIEN TAIEB¹¹, LAURENT TASSAN-GOT⁶, OLOF TENGBLAD¹⁶, PAMELA TEUBIG³³, RONJA THIES²⁹, JIM THORNHILL²⁰, WOLFGANG TRAUTMANN¹, JOACHIM TSCHUESCHNER⁵, HANS TÖRNQVIST⁵, LEV UVAROV³, MARINE VANDEBROUCK⁴⁰, MATJAZ VENCSELJ⁴¹, VLADIMIR VIKHROV³, SERGEI VOLKOV³, VASILY VOLKOV²², ANDREAS WAGNER¹², VADIM WAGNER⁵, FELIX WAMERS¹, CHRISTIAN WARNEKE¹, DAVID WELLS²⁰, PHILIP WICKE¹, ANDREA WILMS¹, JOHN WINFIELD¹, MAX WINKEL¹³, PHIL WOODS²⁶, YIMAN YAN⁶, JUAN CARLOS ZAMORA CARDONA⁵, ANDREY ZHDANOV³, ANDREAS ZILGES³⁴, KAI ZUBER²⁴ und MIRKO VON SCHMID⁵ — ¹GSI Darmstadt, Darmstadt, Germany — ²CERN, Geneva, Switzerland — ³PNPI, Gatchina, Russia — ⁴University of Santiago de Compostela, Santiago de Compostela, Spain — ⁵TU Darmstadt, Darmstadt, Germany — ⁶IPN Orsay, Orsay, France — ⁷Université Paris Sud, Orsay, France — ⁸Lund University, Lund, Sweden — ⁹RBI Zagreb, Zagreb, Croatia — ¹⁰Goethe University Frankfurt, Frankfurt am Main, Germany — ¹¹CEA Bruyères le Chatel, Bruyères-le-Châtel, France — ¹²Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany — ¹³TU München, München, Germany — ¹⁴Texas A&M University-Commerce, Commerce, TX, United States of America — ¹⁵JINR, Dubna, Russia — ¹⁶CSIC, Madrid, Spain — ¹⁷STFC Daresbury Laboratory, Warrington, United Kingdom — ¹⁸Universidad de Vigo, Vigo, Spain — ¹⁹University of Surrey, Surrey, United Kingdom — ²⁰University of Liverpool, Liverpool, United Kingdom — ²¹Institute of Space Sciences, Magurele, Romania — ²²NRC Kurchatov Institute, Moscow, Russia — ²³CEA Saclay, Gif-sur-Yvette, France — ²⁴TU Dresden, Dresden, Germany — ²⁵Instituto Superior Técnico, University of Lisbon, Lisboa, Portugal — ²⁶University of Edinburgh, Edinburgh, United Kingdom — ²⁷University of Vilnius, Vilnius, Lithuania — ²⁸KVI - Center for Advanced Radiation Technology, Groningen, Netherlands — ²⁹Chalmers University of Technology, Göteborg, Sweden — ³⁰Institute for Nuclear Research, MTA Atomki, Debrecen, Hungary — ³¹Universidad Complutense de Madrid, Madrid, Spain — ³²University of Birmingham, Birmingham, United Kingdom — ³³Nuclear Physics Center, University of Lisbon, Lisboa, Portugal — ³⁴Universität zu Köln,

Köln, Germany — ³⁵Eötvös Lóránd University, Budapest, Hungary — ³⁶Extreme Matter Institute, Darmstadt, Germany — ³⁷Saint Mary's University, Halifax, Nova Scotia, Canada — ³⁸Universidade de São Paulo, São Paulo, Brazil — ³⁹National Superconducting Cyclotron Laboratory, East Lansing, MI, United States of America — ⁴⁰GANIL, Caen, France — ⁴¹Josef Stefan Institut Ljubljana, Ljubljana, Slovenia

Koll 39: RADRIS-Kollaboration

MUSTAPHA LAATIAOUI^{1,2}, MICHAEL BLOCK^{1,2,3}, HARTMUT BACKE³, WERNER LAUTH³, DIETER ACKERMANN², BRADLEY CHEAL⁴, PREMADITYA CHHETRI⁵, CHRISTOPH DUELLMAN^{1,2,3}, JULIA EVEN¹, RAFAEL FERRER⁶, FRANCESCA GIACOPPO¹, STEFAN GOETZ³, FRITZ-PETER HESSBERGER², OLIVER KALEJA⁵, JADAMBA KHUYAGBAATAR¹, PETER KUNZ⁷, FELIX LAUTENSCHLAEGER⁵, ANDREW MISTRY¹, SEBASTIAN RAEDER¹, ENRIQUE MINAYA RAMIREZ⁸, THOMAS WALTHER⁵, CALVIN WRAITH⁴, ALEXANDER YAKUSHEV² und CHRIS ANTONY HOWARTH⁴ — ¹HIM, Mainz — ²GSI, Darmstadt — ³JGU, Mainz — ⁴University of Liverpool, Liverpool — ⁵TU Darmstadt, Darmstadt — ⁶KU Leuven, Leuven — ⁷TRIUMF, Vancouver — ⁸IPN, Orsay

Koll 40: S436-Kollaboration

YASSID AYYAD¹, JOSE BENLLIURE², FABIO FARINON⁴, HIROYUKI FUJIOKA⁹, STEFAN FRIEDRICH³, ERIC GUTZ³, EMMA HAETTNER⁴, MUHSIN HARAKEH¹⁰, RYUGO HAYANO¹¹, CHRISTINE HORNUNG^{3,4}, KENTA ITAHASHI¹², RONJA KNOEBEL⁴, NASSER KALANTAR-NAYESTANAKI⁵, RITUPARNA KANUNGO⁷, MIKI KENJIRO¹, IVAN MUKHA⁴, TAKAHIRO NISHI¹², MARIANA NANOA³, ONG HOOI JIN¹, STEPHANE PIETRI⁴, CHRISTOPHE RAPPOLD⁴, PASCAL REITER^{3,4}, JOSELUIS RODRIGUEZ SANCHEZ², HAIK SIMON⁴, MAYA TAKECHI⁴, YOSHIKI TANAKA¹¹, ISAO TANIHATA^{1,6}, SATORU TERASHIMA⁶, HELMUT WEICK⁴, JOHN STUART WINFIELD⁴, XIAODONG Xu^{3,4}, BRANISLAV SITAR⁸, PETER STRMEN⁸, IMRICH SZARKA⁸, HANS GEISSEL^{3,4} und CHRISTOPH SCHEIDENBERGER^{3,4} — ¹Research Center for Nuclear Physics, Osaka University, Osaka, Japan — ²Universidad de Santiago de Compostela, Santiago de Compostela, Spain — ³Giessen University, Gießen, Germany — ⁴GSI Helmholtzzentrum für Schwerionenforschung, D-64291 Darmstadt, Germany — ⁵University of Groningen, Groningen, Netherland — ⁶School of Physics and Nuclear Energy Engineering, Beihang University, Beijing, China — ⁷Saint Mary's University, Halifax, Canada — ⁸Comenius University Bratislava, Bratislava, Slovakia — ⁹Kyoto University, Kyoto, Japan — ¹⁰KVI-CART, Groningen, Netherlands — ¹¹Tokyo University, Tokyo, Japan — ¹²Riken, Wako, Japan

Koll 41: SEASTAR-Kollaboration

P. DOORNEBAL¹, A. OBERTELLI², G. AUTHELET², H. BABA¹, D. CALVET², F. CHÂTEAU², S. CHEN¹, A. CORSI², A. DELBART², J.-M. GHELLER², A. GIGANON², A. GILLIBERT², V. LAPOUX², T. MOTOBAYASHI¹, M. NIIKURA³, N. PAUL², J.-Y. ROUSSE², H. SAKURAI^{1,3}, C. SANTAMARIA², D. STEPPENBECK¹, R. TANIUCHI^{1,3}, T. UESAKA¹, T. ANDO^{1,3}, T. ARICI⁴, A. BLAZHEV⁵, F. BROWNE⁶, A. BRUCE⁶, R. CAROLL⁷, L.X. CHUNG⁸, L. CORTÉS^{9,4}, M. DEWALD⁵, B. DING¹⁰, F. FLAVIGNY¹¹, S. FRANCHOO¹¹, M. GÓRSKA⁴, A. GOTTSARDO¹¹, A. JUNGCLAUS¹², J. LEE¹³, M. LETTMANN⁹, B. LINH⁸, J. LIU¹³, Z. LIU¹⁰, C. LIZARAZO^{9,4}, S. MOMIYAMA^{1,3}, K. MOSCHNER⁵, S. NAGAMINE³, N. NAKATSUKA¹⁶, C. NITA¹⁴, C. NOBS⁶, L. OLIVIER¹¹, Z. PATEL⁷, Z. PODOLYAK⁷, M. RUDIGIER⁷, T. SAITO³, C. SHAND⁷, P.A. SÖDERSTRÖM¹, I. STEFAN¹¹, R.

ORLANDI¹⁵, V. VAQUERO¹², V. WERNER⁹, K. WIMMER³ und Z. XU¹³ — ¹RIKEN Nishina Center, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan — ²CEA, Centre de Saclay, IRFU/Service de Physique Nucléaire, F-91191 Gif-sur-Yvette, France — ³Department of Physics, University of Tokyo, 7-3-1 Hongo, Bunkyo, Tokyo 113-0033, Japan — ⁴GSI Helmholtzzentrum für Schwerionenforschung GmbH, 64291 Darmstadt, Germany — ⁵Universität zu Köln, 50923 Köln, Germany — ⁶School of Computing Engineering and Mathematics, University of Brighton, Brighton BN2 4GJ, United Kingdom — ⁷Department of Physics, University of Surrey, Guildford GU2 7XH, United Kingdom — ⁸Institute for Nuclear Science & Technology, VAEC, P.O. Box 5T-160, Nghia Do, Hanoi, Vietnam — ⁹Institut für Kernphysik, Technische Universität Darmstadt, 64289 Darmstadt, Germany — ¹⁰Institute of Modern Physics, Chinese Academy of Sciences, Lanzhou 730000, P.R. China — ¹¹Institut de Physique Nucléaire Orsay, IN2P3-CNRS, 91406 Orsay Cedex, France — ¹²Instituto de Estructura de la Materia, CSIC, 28006 Madrid, Spain — ¹³Department of Physics, The University of Hong Kong, Pokfulam, Hong Kong — ¹⁴Horia Hulubei National Institute of Physics and Nuclear Engineering (IFIN-HH), RO-077125 Bucharest, Romania — ¹⁵Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Ibaraki, 319-1195, Japan — ¹⁶.

Koll 42: SHIP Decay Spectroscopy-Kollaboration

ANDREW. K. MISTRY¹, FRITZ. P. HESSBERGER², MICHAEL BLOCK^{1,2,3}, DIETER ACKERMANN^{2,4}, BORIS ANDEL⁵, STANISLAV ANTALIC⁵, PREMADITYA CHHETRI⁶, CHRISTOPH DUELLMANN^{1,2,3}, FRANCESCA GIACOPPO¹, SOPHIA HEINZ², JAN HOFFMANN², JADAMBA KHUYAGBAATAR¹, NIKOLAUS KURZ², MUSTAPHA LAATIQUI¹, JOACHIM MAURER², PALO MOSAT⁵, JULIEN PIOT⁴, SEBASTIAN RAEDER¹, MARIJA VOSTINAR⁴ und ALEXANDER YAKUSHEV² — ¹Helmholtz Institute Mainz — ²GSI Darmstadt — ³Johannes Gutenberg University Mainz — ⁴GANIL, Caen — ⁵Comenius University, Slovakia — ⁶TU Darmstadt

Koll 43: SHIPTRAP-Kollaboration

KLAUS BLAUM¹, MICHAEL BLOCK^{2,3,4}, PREMADITYA CHHETRI⁵, SERGEY ELISEEV¹, FRANCESCA GIACOPPO^{2,3}, FRITZ-PETER HESSBERGER², OLIVER KALEJA⁵, MUSTAPHA LAATIQUI^{2,3}, FELIX LAUTENSCHLÄGER⁵, ENRIQUE MINAYA RAMIREZ⁶, ANDREW MISTRY^{2,3}, SEBASTIAN RAEDER^{2,3}, LUTZ SCHWEIKHARD⁷ und PETER THIROLF⁸ — ¹MPIK Heidelberg — ²GSI Darmstadt — ³Helmholtz-Institut Mainz — ⁴Universität Mainz — ⁵TU Darmstadt — ⁶IPN Orsay — ⁷Universität Greifswald — ⁸LMU München

Koll 44: TRIGA-SPEC-Kollaboration

KLAUS BLAUM¹, MICHAEL BLOCK^{2,3,4}, CHRISTOPH E. DÜLLMANN^{2,3,4,5}, KLAUS EBERHARDT^{2,4}, CHRISTIAN GORGES⁶, JESSICA GRUND^{2,5}, SIMON KAUFMANN^{2,6}, JACQUES VAN DE LAAR^{2,5}, SZILLARD NAGY¹, PASCAL NAUBEREIT⁷, WILFRIED NÖRTERSHÄUSER⁶, DENNIS RENISCH², FABIAN SCHNEIDER^{2,5,7} und KLAUS WENDT^{5,7} — ¹Max-Planck-Institut für Kernphysik, Heidelberg — ²Institut für Kernchemie, Johannes Gutenberg-Universität, Mainz — ³GSI Helmholtzzentrum für Schwerionenforschung, Darmstadt — ⁴Helmholtz-Institut Mainz, Mainz — ⁵PRISMA Cluster of Excellence, Johannes Gutenberg-Universität, Mainz — ⁶Institut für Kernphysik, Technische Universität Darmstadt, Germany — ⁷Institut für Physik, Johannes Gutenberg-Universität, Mainz