

Particle Physics Division
Fachverband Teilchenphysik (T)

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Overview of Invited Talks and Sessions

(Lecture halls AudiMax, KH 00.011, KH 00.014, KH 00.015, KH 00.016, KH 00.020, KH 00.023, KH 00.024, KH 01.011, KH 01.012, KH 01.013, KH 01.014, KH 01.019, KH 01.020, KH 01.022, KH 02.013, KH 02.014, KH 02.016, KH 02.018, KH 02.019, AM 00.014, KS H C, KS 00.004, KS 00.005, KS 00.006, and MED 00.915)

Plenary Talk of the Particle Physics Division

PV X Wed 9:45–10:30 AudiMax **Precision at the Energy Frontier: What the LHC is revealing about Fundamental Particle Physics — ●LUDOVICA APERIO BELLA**

Invited Overview Talks

T 1.1	Mon	14:45–15:15	AudiMax	Top-quark physics in a new regime: precision, effective field theory, and the top-quark pair production threshold — ●KNUT ZOCH
T 1.2	Mon	15:15–15:45	AudiMax	Monte Carlo event generators for the HL-LHC — ●STEFFEN SCHUMANN
T 21.1	Tue	11:00–11:30	AudiMax	Three Decades of Dark Matter Annual Modulation Searches: Overview and Current Status — ●KAROLINE SCHAEFFNER
T 21.2	Tue	11:30–12:00	AudiMax	Status and meaning of current tensions in cosmology — ●JULIEN LESGOURGUES
T 21.3	Tue	12:00–12:30	AudiMax	In search of the unknown: Pushing the boundaries in searches for new physics at the LHC — ●DANYER PEREZ ADAN
T 41.1	Wed	11:00–11:30	AudiMax	One of a kind: the Higgs boson — ●MATTEO BONANOMI
T 41.2	Wed	11:30–12:00	AudiMax	Higgs Physics at the LHC and Beyond: Connecting Colliders and the Early Universe — ●THOMAS BIEKÖTTER
T 41.3	Wed	12:00–12:30	AudiMax	Gravitational waves from cosmological phase transitions. — ●THOMAS KONSTANDIN
T 63.1	Thu	11:00–11:30	AudiMax	Binary Black Hole Populations: Scientific Perspectives for the Einstein Telescope — ●MICHELA MAPELLI
T 63.2	Thu	11:30–12:00	AudiMax	JUNO’s First Light: High-Precision Reactor Neutrino Oscillations — ●MICHAEL WURM
T 63.3	Thu	12:00–12:30	AudiMax	Flavour physics at the precision frontier: recent highlights from the LHCb and Belle II experiments — ●EVELINA GERSABECK
T 107.1	Fri	11:00–11:30	AudiMax	Beyond the Main Detectors: An Overview of Smaller Experiments at the LHC — ●FELIX KLING
T 107.2	Fri	11:30–12:00	AudiMax	Pimp my ride: Overhauling the ATLAS and CMS experiments to ride the High Luminosity Highway at the LHC — ●STEFAN MAIER
T 107.3	Fri	12:00–12:30	AudiMax	Overview of the solar model and LUNANOVA — ●DANIEL BEMMERER

Invited Topical Talks

T 43.1	Wed	13:45–14:15	AudiMax	Upgrade of the ATLAS tracker for HL-LHC: production status and challenges — ●ROLAND KOPPENHOFER
T 43.2	Wed	14:15–14:45	AudiMax	Entering the high-granularity calorimetry era: the CMS HGCal upgrade — ●ANTOINE LAUDRAIN
T 43.3	Wed	14:45–15:15	AudiMax	Searching for New Physics in Otherwise Lost LHC Data — ●FALK BARTELS
T 43.4	Wed	15:15–15:45	AudiMax	Federated Computing Infrastructures — ●INGA LAKOMIEC
T 44.1	Wed	13:45–14:15	MED 00.915	Probing Heavy New Physics at the Precision Frontier with Effective Field Theory — ●PETER STANGL
T 44.2	Wed	14:15–14:45	MED 00.915	Hadron Spectroscopy at Belle (II) — ●STEFAN WALLNER
T 44.3	Wed	14:45–15:15	MED 00.915	Rare B meson decays at Belle II: indirect searches for new physics at the luminosity frontier — ●ANA LUISA MOREIRA DE CARVALHO
T 44.4	Wed	15:15–15:45	MED 00.915	Search for CP violation in $D^0 \rightarrow K_S^0 \bar{K}_S^0$ decays at the LHCb experiment — ●GIULIA TUCI
T 64.1	Thu	13:45–14:15	AudiMax	Charting the Higgs Sector with Effective Field Theories — ●ILARIA BRIVIO
T 64.2	Thu	14:15–14:45	AudiMax	Probing CP invariance of Higgs boson production and decay and its interpretation in effective field theories with the ATLAS detector — ●LORENZO ROSSINI
T 64.3	Thu	14:45–15:15	AudiMax	b-tagging unlocks the Higgs potential — ●NICOLE HARTMAN
T 64.4	Thu	15:15–15:45	AudiMax	Modern Machine Learning for LHC Event Generation — ●RAMON WINTERHALDER
T 65.1	Thu	13:45–14:15	MED 00.915	Atmospheric neutrino oscillations with IceCube and the IceCube Upgrade — ●JAN WELDELT
T 65.2	Thu	14:15–14:45	MED 00.915	Exploring the Gravitational Wave Universe with Pulsar Timing Arrays — ●ANDREA MITRIDATE
T 65.3	Thu	14:45–15:15	MED 00.915	Supernova Remnants as Accelerators of Galactic Cosmic Rays — ●ROBERT BROSE
T 65.4	Thu	15:15–15:45	MED 00.915	Supermassive black holes and their relativistic jets: a beacon into the early universe — ●LEA MARCOTULLI

Sessions

T 1.1–1.2	Mon	14:45–15:45	AudiMax	Invited Overview Talks I
T 2.1–2.8	Mon	16:15–18:15	AudiMax	Neutrino Physics I
T 3.1–3.7	Mon	16:15–18:00	KH 00.014	Standard Model Physics I
T 4.1–4.8	Mon	16:15–18:15	KH 00.016	Higgs Physics I
T 5.1–5.8	Mon	16:15–18:15	KH 00.020	Methods in Particle Physics I
T 6.1–6.8	Mon	16:15–18:15	KH 00.023	Electronics, Trigger, DAQ I
T 7.1–7.8	Mon	16:15–18:15	KH 00.024	Data, AI, Computing, Electronics I
T 8.1–8.8	Mon	16:15–18:15	KH 01.011	Flavour Physics I
T 9.1–9.6	Mon	16:15–17:45	KH 01.012	Silicon Detectors I
T 10.1–10.7	Mon	16:15–18:00	KH 01.013	Axions/ALPS I
T 11.1–11.8	Mon	16:15–18:15	KH 01.014	Gaseous Detectors I
T 12.1–12.8	Mon	16:15–18:15	KH 01.022	Silicon Detectors II
T 13.1–13.8	Mon	16:15–18:15	KH 02.013	Higgs Physics II
T 14.1–14.8	Mon	16:15–18:15	KH 02.014	Data, AI, Computing, Electronics II
T 15.1–15.8	Mon	16:15–18:15	KH 02.018	Searches/BSM I
T 16.1–16.8	Mon	16:15–18:15	AM 00.014	Search for Dark Matter I
T 17.1–17.8	Mon	16:15–18:15	KS H C	Neutrino Astronomy I
T 18.1–18.8	Mon	16:15–18:15	KS 00.004	Methods in Astroparticle Physics I
T 19.1–19.8	Mon	16:15–18:15	KS 00.005	Gravitational Waves I
T 20.1–20.6	Mon	16:15–17:45	KS 00.006	Cosmic Rays I
T 21.1–21.3	Tue	11:00–12:30	AudiMax	Invited Overview Talks II
T 22.1–22.9	Tue	16:15–18:30	AudiMax	Neutrino Physics II
T 23.1–23.8	Tue	16:15–18:15	KH 00.011	Top Physics I
T 24.1–24.8	Tue	16:15–18:15	KH 00.014	Standard Model Physics II
T 25.1–25.8	Tue	16:15–18:15	KH 00.016	Higgs Physics III
T 26.1–26.5	Tue	16:15–17:30	KH 00.020	Methods in Particle Physics II

T 27.1–27.8	Tue	16:15–18:15	KH 00.023	Muon Detectors
T 28.1–28.10	Tue	16:15–18:45	KH 00.024	Data, AI, Computing, Electronics III
T 29.1–29.8	Tue	16:15–18:15	KH 01.011	Flavour Physics II
T 30.1–30.9	Tue	16:15–18:30	KH 01.012	Silicon Detectors III
T 31.1–31.8	Tue	16:15–18:15	KH 01.014	Scintillator Detectors I
T 32.1–32.9	Tue	16:15–18:30	KH 01.019	Higgs Physics IV
T 33.1–33.8	Tue	16:15–18:15	KH 01.022	Silicon Detectors IV
T 34.1–34.10	Tue	16:15–18:45	KH 02.014	Data, AI, Computing, Electronics IV
T 35.1–35.9	Tue	16:15–18:30	KH 02.018	Searches/BSM II
T 36.1–36.9	Tue	16:15–18:30	AM 00.014	Search for Dark Matter II
T 37.1–37.9	Tue	16:15–18:30	KS H C	Neutrino Astronomy II
T 38.1–38.9	Tue	16:15–18:30	KS 00.004	Methods in Astroparticle Physics II
T 39.1–39.6	Tue	16:15–17:45	KS 00.005	Gravitational Waves II
T 40.1–40.9	Tue	16:15–18:30	KS 00.006	Cosmic Rays II
T 41.1–41.3	Wed	11:00–12:30	AudiMax	Invited Overview Talks III
T 42.1–42.1	Wed	12:40–13:40	KS H C	Annual Meeting of Young Scientists in High Energy Physics (yHEP)
T 43.1–43.4	Wed	13:45–15:45	AudiMax	Invited Topical Talks I
T 44.1–44.4	Wed	13:45–15:45	MED 00.915	Invited Topical Talks II
T 45.1–45.9	Wed	16:15–18:30	AudiMax	Neutrino Physics III
T 46.1–46.7	Wed	16:15–18:00	KH 00.011	Top Physics II
T 47.1–47.8	Wed	16:15–18:15	KH 00.014	Higgs Physics V
T 48.1–48.8	Wed	16:15–18:15	KH 00.020	Methods in Particle Physics III
T 49.1–49.8	Wed	16:15–18:15	KH 00.023	Electronics, Trigger, DAQ II
T 50.1–50.7	Wed	16:15–18:00	KH 00.024	Data, AI, Computing, Electronics V
T 51.1–51.10	Wed	16:15–18:45	KH 01.011	Flavour Physics III
T 52.1–52.8	Wed	16:15–18:15	KH 01.012	Silicon Detectors V
T 53.1–53.9	Wed	16:15–18:30	KH 01.014	Scintillator Detectors II
T 54.1–54.8	Wed	16:15–18:15	KH 01.019	Higgs Physics VI
T 55.1–55.10	Wed	16:15–18:45	KH 01.022	Silicon Detectors VI
T 56.1–56.6	Wed	16:15–17:45	KH 02.014	Data, AI, Computing, Electronics VI
T 57.1–57.9	Wed	16:15–18:30	KH 02.016	Outreach I
T 58.1–58.7	Wed	16:15–18:00	KH 02.018	Searches/BSM III
T 59.1–59.9	Wed	16:15–18:30	KS H C	Neutrino Astronomy III
T 60.1–60.9	Wed	16:15–18:30	KS 00.004	Methods in Astroparticle Physics III
T 61.1–61.6	Wed	16:15–17:45	KS 00.005	Gamma Astronomy I
T 62.1–62.8	Wed	16:15–18:15	KS 00.006	Cosmic Rays III
T 63.1–63.3	Thu	11:00–12:30	AudiMax	Invited Overview Talks IV
T 64.1–64.4	Thu	13:45–15:45	AudiMax	Invited Topical Talks III
T 65.1–65.4	Thu	13:45–15:45	MED 00.915	Invited Topical Talks IV
T 66.1–66.7	Thu	16:15–18:00	AudiMax	Neutrino Physics IV
T 67.1–67.7	Thu	16:15–18:00	KH 00.011	Top Physics III
T 68.1–68.6	Thu	16:15–17:45	KH 00.014	Standard Model Physics III
T 69.1–69.6	Thu	16:15–17:45	KH 00.020	Methods in Particle Physics IV
T 70.1–70.7	Thu	16:15–18:00	KH 00.023	Electronics, Trigger, DAQ III
T 71.1–71.7	Thu	16:15–18:00	KH 00.024	Data, AI, Computing, Electronics VII
T 72.1–72.8	Thu	16:15–18:15	KH 01.011	Flavour Physics IV
T 73.1–73.6	Thu	16:15–17:45	KH 01.012	Calorimeters I
T 74.1–74.7	Thu	16:15–18:00	KH 01.014	Gaseous Detectors II
T 75.1–75.8	Thu	16:15–18:15	KH 01.019	Higgs Physics VII
T 76.1–76.8	Thu	16:15–18:15	KH 01.022	Silicon Detectors VII
T 77.1–77.8	Thu	16:15–18:15	KH 02.013	Higgs Physics VIII
T 78.1–78.8	Thu	16:15–18:15	KH 02.014	Flavour Physics V
T 79.1–79.6	Thu	16:15–17:45	KH 02.018	Searches/BSM IV
T 80.1–80.6	Thu	16:15–17:45	KH 02.019	Axions/ALPs II
T 81.1–81.6	Thu	16:15–17:45	AM 00.014	Search for Dark Matter III
T 82.1–82.7	Thu	16:15–18:00	KS H C	Neutrino Astronomy IV
T 83.1–83.7	Thu	16:15–18:00	KS 00.004	Methods in Astroparticle Physics IV
T 84.1–84.6	Thu	16:15–17:45	KS 00.005	Gamma Astronomy II
T 85.1–85.6	Thu	16:15–17:45	KS 00.006	Cosmic Rays IV
T 86	Thu	18:30–19:30	AM 00.014	Members' Assembly

T 87.1–87.6	Fri	9:00–10:30	AudiMax	Neutrino Physics V
T 88.1–88.6	Fri	9:00–10:30	KH 00.011	Top Physics IV
T 89.1–89.6	Fri	9:00–10:30	KH 00.014	Higgs Physics IX
T 90.1–90.5	Fri	9:00–10:15	KH 00.015	Calorimeters II
T 91.1–91.5	Fri	9:00–10:15	KH 00.020	Methods in Particle Physics V
T 92.1–92.5	Fri	9:00–10:15	KH 00.023	Electronics, Trigger, DAQ IV
T 93.1–93.5	Fri	9:00–10:15	KH 00.024	Data, AI, Computing, Electronics VIII
T 94.1–94.6	Fri	9:00–10:30	KH 01.011	Flavour Physics VI
T 95.1–95.6	Fri	9:00–10:30	KH 01.014	Gaseous Detectors III
T 96.1–96.6	Fri	9:00–10:30	KH 01.020	Outreach II
T 97.1–97.5	Fri	9:00–10:15	KH 01.022	Silicon Detectors VIII
T 98.1–98.6	Fri	9:00–10:30	KH 02.013	Higgs Physics X
T 99.1–99.6	Fri	9:00–10:30	KH 02.014	Searches/BSM V
T 100.1–100.3	Fri	9:00– 9:45	KH 02.016	Miscellaneous
T 101.1–101.6	Fri	9:00–10:30	KH 02.018	Searches/BSM VI
T 102.1–102.6	Fri	9:00–10:30	KH 02.019	Axions/ALPs III
T 103.1–103.5	Fri	9:00–10:15	AM 00.014	Search for Dark Matter IV
T 104.1–104.6	Fri	9:00–10:30	KS H C	Neutrino Astronomy V
T 105.1–105.6	Fri	9:00–10:30	KS 00.004	Methods in Astroparticle Physics V
T 106.1–106.5	Fri	9:00–10:15	KS 00.005	Gamma Astronomy III
T 107.1–107.3	Fri	11:00–12:30	AudiMax	Invited Overview Talks V

Members' Assembly of the Particle Physics Division

Thursday 18:30–19:30 AM 00.014