

Symposium Trends in atom interferometry (SYAI)

organised by Working Group young DPG (AKjDPG)

supported by all divisions of the section AMOP

Baptist Piest
 Institut für Quantenoptik
 Leibniz Universität Hannover
 Welfengarten 1
 30167 Hannover
 piest@iqo.uni-hannover.de

Kai Frye
 Institut für Quantenoptik
 Leibniz Universität Hannover
 Welfengarten 1
 30167 Hannover
 frye@iqo.uni-hannover.de

Knut Stolzenberg
 Institut für Quantenoptik
 Leibniz Universität Hannover
 Welfengarten 1
 30167 Hannover
 stolzenberg@iqo.uni-hannover.de

Alexander Herbst
 Institut für Quantenoptik
 Leibniz Universität Hannover
 Welfengarten 1
 30167 Hannover
 herbst@iqo.uni-hannover.de

Jonas Böhm
 Institut für Quantenoptik
 Leibniz Universität Hannover
 Welfengarten 1
 30167 Hannover
 boehm@iqo.uni-hannover.de

Atom interferometry is a versatile tool to probe various aspects of fundamental physics at the interface of quantum mechanics and gravity. Starting with the first demonstration of light pulse interferometry in the beginning of the 90s, the field has developed to a flourishing research subject at the frontier of modern physics. Building upon recent insights and groundbreaking results, this symposium will discuss future experiments ranging from compact setups and space-borne apparatuses to very long baseline facilities. Especially young graduate students in master programmes are highly encouraged to participate in this symposium.

Overview of Invited Talks and Sessions

(Lecture hall Audimax)

Invited Talks

SYAI 1.1	Mon	14:00–14:30	Audimax	Atom interferometry and its applications for gravity sensing — •FRANCK PEREIRA DOS SANTOS, LUC ABSIL, YANN BALLAND, SÉBASTIEN MERLET, MAXIME PESCHE, RAPHAËL PICCON, SUMIT SARKAR
SYAI 1.2	Mon	14:30–15:00	Audimax	Atom interferometry for advanced geodesy and gravitational wave observation — •PHILIPPE BOUYER
SYAI 1.3	Mon	15:00–15:30	Audimax	3D printing methods for portable quantum technologies — •LUCIA HACKERMÜLLER
SYAI 1.4	Mon	15:30–16:00	Audimax	Fundamental physics with atom interferometry — •PAUL HAMILTON

Sessions

SYAI 1.1–1.4	Mon	14:00–16:00	Audimax	Trends in atom interferometry
--------------	-----	-------------	---------	--------------------------------------