

# Workshop on Advanced Laser and Mass Spectroscopy

## ALMAS-1: Innovative Physics Ideas

October 19/20, 2006  
GSI, Darmstadt, Germany

### Second Circular

Dear Colleague!

The second circular is to remind you of our workshop on advanced nuclear physics studies with laser spectroscopy and mass spectrometry, to be held on October 19/20, 2006 at GSI in Darmstadt, Germany.

#### **OBJECTIVES AND TOPICS**

The aim of the workshop is the presentation and discussion of innovative physics ideas as well as novel experimental methods for new experiments applying laser spectroscopy and mass measurements to be performed on new and upgraded facilities, particularly the future FAIR facility at GSI. The workshop should serve for discussions between theoretical and experimental physicists to identify cases where experiments are highly demanded and of great interest.

#### **PROGRAM**

The two days program is split in eight sessions with exclusively invited speakers. A draft of the current program displaying the speakers and the working title of their presentations is attached to this circular.

#### **PARTICIPATION AND REGISTRATION**

For registration please use the online-registration form on our homepage at GSI

<http://www.gsi.de/forschung/ap/conferences/almas/>

or

<http://www-aix.gsi.de/ALMAS1/>

*We kindly ask also the invited speakers to register on-line for the workshop !*

Deadline for registration will be September 18. There will be no conference fee for this workshop.

## ACCOMMODATION

For the participants of the workshop a contingent of rooms is still available at the IBIS hotel in Darmstadt. The room rate is 71.00 € per person and night, breakfast included. This arrangement will be valid latest until September 18<sup>th</sup>. Please contact the hotel directly; accommodation via GSI is not possible. When getting in contact with the IBIS hotel, please mention reservation number (Reservierungsangebot) **38875**.

Hotel address: Hotel IBIS Darmstadt, Kasinostraße 6, 64293 Darmstadt  
Tel.: ++49-(0)6151-3970-0 Fax.: -123

A bus shuttle service from the IBIS hotel to the GSI site will be organized during the workshop.

## LOCAL ORGANIZING COMMITTEE

Klaus Blaum (Chairman)	University of Mainz
Hans Geissel	GSI, Darmstadt
Christopher Geppert	GSI, Darmstadt
Frank Herfurth	GSI, Darmstadt
Yuri A. Litvinov	GSI, Darmstadt
Wilfried Nörtershäuser	University of Mainz
Yuri Novikov	PNPI, St. Petersburg
Wolfgang Quint	GSI, Darmstadt
Christoph Scheidenberger	GSI, Darmstadt
Phil Walker	University of Surrey

## CORRESPONDENCE

For further questions and assistance concerning the workshop and its organisation please contact:

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## FURTHER INFORMATION

For recent updates see the conference workshop homepage

[http://www.gsi.de/forschung/ap/conferences/almas/index\\_e.html](http://www.gsi.de/forschung/ap/conferences/almas/index_e.html)

or alternatively <http://www.kernchemie.uni-mainz.de/almas>

## Draft of the **ALMAS-1** workshop program:

	Thursday, 19/10	Friday, 20/10
09:00	<b>Session 1: Introduction</b> Welcome (5) Talk 1: Krämer Talk 2: ILIMA-, LaSpec- and MATS-Spokespersons	<b>Session 5: 2*(30+10) Theory</b> Welcome (10) Talk 12: Bürvenich Talk 13: Wyss
10:30	Coffee	Coffee
11:00	<b>Session 2: 3*(30+10) Masses</b> Talk 3: Kluge Talk 4: Casten Talk 5: v. Isacker	<b>Session 6: 3*(30+10) Astrophysics</b> Talk 14: Schatz Talk 15: Jakovlev Talk 16: Litvinov
13:00	Lunch	Lunch
14:15	<b>Session 3: 3*(30+10) Laser Spectroscopy</b> Talk 6: Neugart Talk 7: Campbell Talk 8: Müller	<b>Session 7: 3*(30+10) New Developments</b> Talk 17: Äystö Talk 18: Ozawa Talk 19: Hofmann
16:15	Coffee	Coffee
16:45	<b>Session 4: 3*(30+10) Beam Preparation</b> Talk 9: Bollen Talk 10: Lunney Talk 11: Dendooven	<b>Session 8: 3*(30+10) New Phenomena</b> Talk 20: Walker Talk 21: Iachello Talk 22: Riskin
19:00	Welcome Dinner	Farewell Dinner

Talk 1: Krämer	FAIR - Status and perspectives (30+10)
Talk 2: Spokespersons	Status of ILIMA, LaSpec and MATS (3*15)
Talk 3: Kluge	Ultrahigh precision mass-spectrometry
Talk 4: Casten	Why we need precise mass measurements for nuclear structure?
Talk 5: v. Isacker	Masses of atomic nuclei far from stability
Talk 6: Neugart	Trends in nuclear charge radii – Hot topics in the future
Talk 7: Campbell	High-spin isomers: What we can learn from laser spectroscopy
Talk 8: Müller	On-line spectroscopy with a Cf-source – Applying new techniques on-line
Talk 9: Bollen	A cyclotron for the thermalization and fast extraction of energetic and intense rare isotope beam
Talk 10: Lunney	Circus – A racetrack for short-lived isotopes
Talk 11: Dendooven	Superfluid helium and cryogenic noble gases as stopping media for ion catchers
Talk 12: Bürvenich	(title to be announced)
Talk 13: Wyss	(title to be announced)
Talk 14: Schatz	(title to be announced)
Talk 15: Jakovlev	Pycnonuclear reaction
Talk 16: Litvinov	Decay of single ions in ESR
Talk 17: Äystö	Trap-assisted spectroscopy
Talk 18: Ozawa	(title to be announced)
Talk 19: Hofmann	Study of superheavy nuclei
Talk 20: Walker	Exotic isomeric states
Talk 21: Iachello	Phase transitions and masses
Talk 22: Riskin	Meson condensation in nuclei