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On the most complex atomic systems – fundamental studies and ultratrace analytics in lanthanides and actinides



The Physics Colloquium is a series of public lectures hosted by the Faculty of Physics of the University of Vienna, featuring internationally renowned speakers covering the full breadth of our fields of research

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On the most complex atomic systems – fundamental studies and ultratrace analytics in lanthanides and actinides

The combination of state-of-the-art laser resonance ionization spectroscopy with sensitive mass spectrometry gives access to rare elements or isotopes almost entirely free of interferences and background. Spectroscopic investigations on stable and radioactive isotopes in the range of the lanthanides and the isoelectronic actinides are discussed, which provide valuable information on atomic and nuclear structure in this specific range of Periodic table or nuclear chart. Aside of exhibiting signs of quantum chaos in the complex atomic systems the studies open up new perspectives for laser spectroscopy towards super heavy elements as well as selective ultratrace analytics on minor actinides by using laser mass spectrometry.

**20 March
2023**

Monday, 20 March at 13:30-15:00

A light lunch buffet will be offered before the lecture at 13:00.

Lise-Meitner lecture hall

Faculty of Physics, Strudlhofgasse 4, 1090 Vienna

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