

Physikalisches Kolloquium Physics Colloquium **Einladung**

Invitation

Monday, 12 December 2022

Lecture Hall N24/H13, at 16:15 Coffee and cookies will be served in front of the lecture hall from 16:00

Laser spectroscopy within the most complex atomic systems - fundamental studies and ultratrace analytics in lanthanides and actinides

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The combination of state-of-the-art laser resonance ionization spectroscopy with sensitive mass spectrometry gives access to individual 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 in selective ultratrace analytics on radioisotopes by using laser mass spectrometry.



Host: Prof. Dr. Johannes Hecker Denschlag, Institute of Quantum Matter

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