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TU Wien, Institut für Angewandte Physik, E134
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Acoustic Levitation: Recent Improvements, Do-It-Yourself Devices, and Applications in Display Technologies

Acoustic Tweezers use sound radiation forces to trap and manipulate samples. They provide unique advantages such as high trapping force, support of numerous sample materials and operation in various media. Also, the available range of sound frequencies enable applications from the micrometre to the centimetre scale.

Despite the advantages of Acoustic Tweezers, its progress has always been behind that of Optical Tweezers. In this talk, I will present recent advancements that have reduced the gap between acoustic and optical trapping, i.e. single-beam, wavelength-scale, and multi-particle acoustic trapping. Additionally, I will introduce DIY levitators that everyone can build at home. Finally, I will showcase some specific applications of acoustic levitation in display technologies.

All interested colleagues are welcome to this seminar lecture (45 min. presentation followed by discussion)

Friedrich Aumayr
(LVA-Leiter)

Martin Gröschl
(Seminar Chair)