



TECHNISCHE
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INSTITUT FÜR
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IAP-SEMINAR

ANNOUNCEMENT

- Date: **Wednesday, 27.4.2016 (Special Date and Location!!)**
Time: **16:00 p.m.**
Location: **Technische Universität Wien, Institut für Angewandte Physik, E134**
red tower „C“, 5th floor, **meeting room (room number DC05E22)**, 1040
Wien, Wiedner Hauptstraße 8-10
- Lecturer: **MSc Nathala Chandra S.R.**
TU Wien, IAP
- Subject: **Laser-induced periodic surface structures: Formation mechanisms,
characteristics and applications**
- Abstract: Laser-induced periodic surface structures (LIPSS or ripples) appear on all kinds of materials: dielectrics, semiconductors, polymers and metal surfaces, when exposed to single or multiple ultra-short laser pulses. The formed periodic structures have two sets of periods¹. One set of periods is close to the wavelength of the laser radiation and the other set has periods close to 1/10th of the wavelength of the incident radiation. The field has recently gained remarkable interest as they can be generated in a single-step process and allows a wide range of surface functionalization. Possible applications include colorization, control of surface wetting behaviour and friction management. In this seminar, I will talk about the formation mechanisms of LIPSS, results of our experiments and current state-of-the art applications of LIPSS.

¹ C. S. R. Nathala, A. Ajami, A. A. Ionin, S. I. Kudryashov, S. V. Makarov, T. Ganz, A. Assion, and W. Husinsky, Optics Express 23, 5915 (2015).

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

*W. Husinsky e.h.
(Seminar-Chairperson)*

*H. Störi e.h.
(LVA-Leiter)*