

prof Dragan Indjin z University of Leeds (UK)

Title: Intersubband semiconductor quantum well based devices and applications

- Electronic materials for semiconductor quantum structures
- An introduction to semiconductor quantum structures
- Semiconductor quantum wells
- Ideal quantum wells
- Real semiconductor quantum wells
- Effective mass approximation and band nonparabolicity
- Electronic structure of semiconductor quantum well
- Optical properties and infrared light absorption in semiconductor quantum wells
- Quantum well infrared photodetectors
- Optical nonlinearities in quantum well structures
- Optimisation of resonant harmonic generation in quantum wells
- Intersubband carrier scatterings
- Intersubband lasers fundamentals
- Quantum cascades
- MIR Quantum cascade lasers
- THz quantum cascade lasers
- Applications of semiconductor quantum-well devices in sensing and imaging.

Seminary: Electronic transport and optical properties calculations for semiconductor quantum structures

godziny	wykład	wykład	wykład	laboratorium	laboratorium
	pon.	wt.	śr.	czw.	pt.
8:30 - 15:00	18.02.2019	19.02.2019	20.02.2019	21.02.2019	22.02.2019
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