



# ESLW 2009



**European Semiconductor Laser Workshop 2009**  
September 25<sup>th</sup> – 26<sup>th</sup>, 2009 Vienna, Austria

## Friday, September 25th, 2009

- 08:45 Registration open  
09:10 K.Unterrainer Welcome address and Opening Chair  
09:15 C. Sitori The quantum cascade laser: a unifying concept for laser action in the 3 to 300 $\mu$ m  
plenary talk wavelength range  
10:00 Coffee Break (30 min)

### QDOT-Laser

Session Chair: G. Strasser

- 10:30 M. Hopkinson High power, broadband, InGaAs quantum dot superluminescent diodes  
extended talk  
11:00 A. R. Adams Evidence for Temperature Dependent Auger Recombination in 1.3 $\mu$ m Quantum Dot  
lasers  
11:15 F. Grillot Influence of the Linewidth Enhancement Factor on the Modulation Response of a  
Quantum Dot Laser under Optical Feedback  
11:30 J.-F. Hayau Major role of the wetting layer in the intensity noise response for quantum dot laser  
11:45 B.W. Tilma Observation and Modeling of Long-wavelength InAs/InP(100) Quantum Dot Amplifier  
Small Signal Gain Spectra  
12:00 Lunch

### Devices for optical signal processing

Session Chair: E.A.J. M Bente

- 14:00 G. Giuliani Semiconductor Ring Lasers for all-optical Flip-Flop and signal processing  
extended talk  
14:30 M. Cabezón Viability of all-optical programmable logic devices based on XGMon SOAs  
14:45 A. Martinez New approach based on linear spectrogram to measure optical delays in  
semiconductor optical amplifiers  
15:00 L. Mörl SOAs and EMLs: Development of flip-chip compatible devices within BOOM  
15:15 D. Puris Time-Domain Modelling of Quantum-Dot Semiconductor Optical Amplifiers for  
Broadband Optical Signals  
15:30 Coffee Break (30 min)

### QCL

Session Chair: C. Sirtori

- 16:00 M. Nobile Al-free MIR quantum cascade lasers  
16:15 S. Bonnefont Continuous-wave single-mode GaInAsSb/GaSb photonic crystal coupled cavity  
lasers emitting at 2.6  $\mu$ m  
16:30 S. Höfling Spectral Tuning of Interband Cascade Lasers in the 3-4  $\mu$ m Wavelength Range  
16:45 T. Schmielau Efficient Nonequilibrium Green's Function Simulation of Transport in Quantum  
Cascade Lasers  
17:00 A. Benz Gain photonic crystal resonators for terahertz quantum-cascade lasers  
17:15 E. Mujagic Surface emitting MIR and THz ring cavities  
17:30 End  
19:00 Dinner



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**Saturday, September 26th, 2009**

## Modulation

Session Chair: K. Unterrainer

- 09:00 J. M. Pozo Novel Integrated Tuneable Laser using Filtered Feedback  
extended talk
- 09:30 E. L. Portnoi Mode-locking peculiarities in broadened-waveguide QW laser diodes
- 09:45 S. McMaster Picosecond pulse generation from a 36 GHz passively modelocked MQW semiconductor ring laser in AlGaInAs
- 10:00 M. Radziunas Traveling wave modeling and mode analysis of mode-locked quantum dot semiconductor lasers
- 10:15 G. Craggs Low-speckle laser projection using farfield nonmodal laser emission of a semiconductor laser
- 10:30 Coffee Break (30 min)

## Cavities

Session Chair: J. M. Pozo

- 11:00 S. Höfling Micropillar Cavity Lasers in the Cavity Quantum Electrodynamics Regime  
extended talk
- 11:30 B. Kögel Short-wavelength tunable VCSELs
- 11:45 S. Beri Excitability in Semiconductor Ring Lasers
- 12:00 W. Coomans Optical Injection in Semiconductor Ring Lasers
- 12:15 TBA
- 12:30 Closing

## POSTERS

Posters will be displayed during breaks

- G. Almuneau High reflectivity monolithic sub-wavelength diffraction grating with GaAs/AlO<sub>x</sub> stack  
J. Sarma Optimal Geometry for phase-locked index-guided Tapered Laser Array