VCSEL Day 2026 Preliminary Program

Talk schedule and poster-session list

Program

Welcome 09:30–09:40

Session 1: Polarization and Spin-VCSEL Dynamics 09:40–10:40

Slot	Speaker	Contribution
09:40–10:00	V. Torrelli	Impact of anisotropies and magnetic fields on VCSELs' polarization
10:00–10:20	M. Drong	Control of spin-VCSEL dynamics via non-Hermitian singularities
10:20–10:40	A. Gasbarri	FWM and Polarization Instabilities in the RIN of Multi-Mode VCSELs: Full vs. Partial Polarization Control

Poster Session and Coffee Break 10:40–11:40

Session 2: Spin Injection, Ultrafast Dynamics, and Computing 11:40–12:40

Slot	Speaker	Contribution
11:40–12:00	M. Lindemann	Spin injection and ultrafast dynamics in VCSELs [DRAFT]
12:00–12:20	N. Heermeier	Towards electrical spin injection for VCSELs
12:20–12:40	K. Luedge	Spin-VCSEL for physical reservoir computing

Lunch Break 12:40–14:10

Session 3: Quantum Applications and Sensing 14:10–14:50

Slot	Speaker	Contribution
14:10–14:30	N. Jung	Evaluation and Certification of QKD Systems: Opportunities and Challenges for VCSEL Applications
14:30–14:50	A. Gullino	Optimized design of 795 nm Multi-Junction Vertical-Cavity Surface-Emitting Lasers for Quantum Sensing Applications

Poster Session and Coffee Break 14:50–15:50

Session 4: Power Scaling and Emerging Devices 15:50–16:50

Slot	Speaker	Contribution
15:50–16:10	P. Debernardi	Towards 100 mW axial single-mode, single-polarisation VCSELs
16:10–16:30	J. Steck	Red VCSEL with Integrated Photodiode
16:30–16:50	M. Marciniak	Tailoring Multimode VCSELs for Emerging Photonic Applications through Noncircular Apertures

Lab Tours 16:50–17:30

Conference Dinner 18:00

Poster Session List

Poster	Presenter	Contribution
P01	M. G. C. Alasio	Po.Li.Te: a VCSEL-native design tool for frontier VCSEL architectures
P02	K. Dahler	Monolithic 850 nm VCSEL arrays for Quantum Key Distribution via the Decoy State Protocol
P03	M. D'Alessandro	Impact of coherent coupling on transverse modes dynamics
P04	T. de Adelsburg Ettmayer	Self Injection Locking in Laterally Coupled Cavity VCSELs [DRAFT]
P05	U. Diiankova	Experimental study of polarization dynamics in a 794 nm spin-VCSEL
P06	K. Olucha	Key Aspects of Ge-Based Array Fabrication
P07	S. Tamborrino	Reconstruction of an effective 2D VCSEL from near-field measurements for predictive VCSEL-MMF coupling modelling