

# RMOSA

Rocky Mountain Section of the Optical Society of America

## Joint RMOSA/IEEE-LEOS Seminar & Meeting

SEPTEMBER 20, 2007

Refreshments: 7 p.m. :: Seminar: 7:30 p.m. [BUS 340 Leeds Business, CU, Boulder](#)

### Microcavity Lasers: Light for the Information Age



#### Prof. Kent D. Choquette

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**Abstract:** The infrastructure of the Information Age relies upon an efficient, fast, and inexpensive manner to distribute digital data. The emergence of photonics for data communication is enabling the interconnection of our planet at all length scales. Central to the photonic revolution is the development of miniature lasers, such as vertical cavity surface emitting lasers. Recent progress in device physics and nanotechnology is leading to a new generation of high performance lasers. This presentation will discuss the application of nanotechnology to achieve unprecedented confinement of both photons and electrons to develop the next generation of lasers, photonic integrated circuits, and sensors.

**Bio:** Kent D. Choquette received B.S. degrees in Engineering Physics and Applied Mathematics from the University of Colorado-Boulder in 1984 and the M.S. and Ph.D. degrees in Materials Science from the University of Wisconsin-Madison in 1985 and 1990, respectively. From 1990 to 1992 he held a postdoctoral appointment at AT&T Bell Laboratories, Murray Hill, NJ. He joined Sandia National Laboratories in Albuquerque, NM, and from 1993 to 2000 was a Principal Member of Technical Staff. He became a Professor in the Electrical and Computer Engineering Department at the University of Illinois at Urbana-Champaign in 2000. His Photonic Device Research Group is centered around the design, fabrication, characterization, and applications of vertical cavity surface-emitting lasers (VCSELs), novel microcavity light sources, nanofabrication technologies, and hybrid integration techniques.

From 2000 to 2002, he was an IEEE/Lasers and Electro-Optics Society (LEOS) Distinguished Lecturer. He has authored more than 200 technical publications and three book chapters, and has presented numerous invited talks and tutorials on VCSELs.

Dr. Choquette has served as an Associate Editor of the *IEEE Journal of Quantum Electronics* and *IEEE Photonic Technology Letters*, and as a Guest Editor of *IEEE Journal of Selected Topics in Quantum Electronics*. He is a Fellow of IEEE and a Fellow of the Optical Society of America.

<http://www.osa.org/localsections/rmosa/>

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