



SEMINAR

Center for Advanced Research in Photonics
&
Department of Electronic Engineering
The Chinese University of Hong Kong

Friday, 21st November 2008
2:30 p.m.
Rm 222 Ho Sin Hang Engineering Building,
The Chinese University of Hong Kong

Signal Processing in III-V Semiconductors for High Speed Optical Switching

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Abstract

All-optical packet switching based on optical signal processing in semiconductor optical amplifiers and lasers is discussed. In particular attention is paid to wavelength conversion at bit-rates higher than 160 Gb/s in a single semiconductor optical amplifier and to all optical header processing. Examples of integrated devices are given. Finally, attention is paid to the all-optical packet buffering.

About the Author

H.J.S. Dorren received his M.Sc. degree in theoretical physics in 1991 and the Ph.D. degree in 1995, both from Utrecht University, Utrecht, the Netherlands. After postdoctoral positions he joined Eindhoven University of Technology, Eindhoven, the Netherlands in 1996 where he presently serves as a professor and as the scientific director of the COBRA Research Institute. In 2002 he was also a visiting researcher at the National Institute of Industrial Science and Technology (AIST) in Tsukuba in Japan. His research interests include optical packet switching, digital optical signal processing and ultrafast photonics. Prof. Dorren (co-)authored over 250 journal papers and conference proceedings and currently serves as an associate editor for the IEEE Journal of Quantum Electronics.

***** All are welcome to attend *****

For further information contact Prof. Chester Shu at 2609 8258