



## Photonics Forum

*June 15, 2018*

*11:45 a.m. -  
1:15 p.m.*

*9th Floor*

*Room 901*

*Photonics Center*

*8 Saint Mary's Street*

*Lunch will be served!*



## Dr. Martin Fermann, IMRA

### Ultrafast Fiber Lasers: Power and Precision for the Real World

#### Faculty Host: Professor Siddharth Ramachandran

Emerging applications of fiber lasers in manufacturing, spectroscopy, precision metrology and microwave photonics call for significant improvements in power levels, spectral bandwidths, stability and noise than currently attainable from fiber technology. Dr. Fermann will present some of his recent research in these areas comprising: coherent addition of ultrafast lasers, mid IR sources, frequency combs aimed at below 10-18 relative frequency stability, as well as ultra-low noise tunable microwave sources.

Martin Fermann received his Ph.D. from Southampton University, U. K. in 1988. After spending four years as a post doc and research associate at the Technical University of Vienna and Bellcore, he joined IMRA America Inc. in 1992. In 2001 he accepted a position as CTO at Boston Laser before rejoining IMRA in 2002, where he is currently serving as Vice President for Research and Advanced Development. He is an author or co-author of around 400 technical papers and conference presentations and more than 150 US patents and applications. Many of his patents are licensed by third parties. He has been active in the committees of numerous technical conferences and served as General Chair for the Conference on Advanced Solid State Lasers. His main interests comprise ultrafast optics, frequency combs, microwave photonics, precision spectroscopy and metrology, fiber and solid-state lasers. He is a fellow of The Optical Society.



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