

PHOTONICS CENTER/ECE DISTINGUISHED SEMINAR

Professor Govind P. Agrawal, Institute of Optics

Space-Time Duality in Optics

October 13, 2017

11 a.m.-12 p.m.

Room 901

Photonics Center

8 Saint Mary's Street

Refreshments will be served!



The concept of space-time duality, known since the 1960s, is attracting attention in recent years in the context of temporal imaging. In this talk, Professor Agrawal will review these advances and then focus on his recent work on the temporal analog of reflection and refraction of optical pulses in a medium whose refractive index changes suddenly at a temporal boundary. Analogs of total internal reflection and temporal wave-guiding will also be presented.

Govind P. Agrawal received an M.S. and Ph.D. from the Indian Institute of Technology, New Delhi in 1971 and 1974 respectively. After holding positions at the Ecole Polytechnique in France, the City University of New York, and AT&T Bell Laboratories, Dr. Agrawal joined the faculty of the Institute of Optics at University of Rochester in 1989, where he is currently James C. Wyant Professor of Optics. His research interests focus on optical communications, nonlinear photonics, and laser physics. He is an author or coauthor of more than 400 research papers and eight books. His books on *Nonlinear Fiber Optics* (Academic Press, 5th ed., 2013) and *Fiber-Optic Communication Systems* (Wiley, 4th ed., 2010) are used worldwide for research and teaching. Since 2014, he has served as Editor-in-Chief of the journal *Advances in Optics and Photonics*.

Professor Agrawal is a Fellow of IEEE and OSA and a Life Fellow of the Optical Society of India. In 2012, IEEE Photonics Society honored him with its prestigious Quantum Electronics Award. He received the Riker University Award for Excellence in Graduate Teaching in 2013. More recently, he was awarded the 2015 Esther Hoffman Beller Medal of the Optical Society.