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CONTACT: Roger Stolen, (615) 504-6540 cell

rstolen@clemson.edu

WRITER: Susan Polowczuk, (864) 656-2063

spolowc@clemson.edu

Optics researcher elected to prestigious Russian Academy of Sciences

CLEMSON — The prestigious [Russian Academy of Sciences](#) has elected Roger Stolen, a distinguished visiting professor in materials science and engineering at Clemson University, as a foreign member.

Stolen is a pioneer in the field of optics, the science and technology of generating and harnessing light, and is a [Center for Optical Materials Science and Engineering Technologies \(COMSET\)](#) faculty member. He studies new materials that interact with light in ways that have critical commercial application in the fields of telecommunications, defense, sensing and displays.



“This is a very significant honor,” said Chris Przirembel, vice president for research and economic development at Clemson. “This membership gives Roger Stolen, and therefore the Clemson optics community, the opportunity to collaborate with some of the most brilliant minds in the world in the field of optics.”

Stolen worked for Bell Labs for 30 years and was part of the team that first observed optical solitons, which are ultra-short pulses that travel great distances without dispersion. Soliton properties of optical pulses play an important role in modern high-capacity optical communication systems. Since 1971, he has been involved in most aspects of fiber optics research, especially fiber nonlinear optics, fiber measurements, novel fibers and fiber components. He is a retired professor of electrical engineering at Virginia Tech and joined [COMSET](#) in April 2006.

Stolen received a bachelor of arts from St. Olaf College and a Ph.D. in solid state physics from the University of California at Berkley, followed by post-doctoral work at the University of Toronto. In 1990, he was awarded the Optical Society of America's (OSA) R.W. Wood Prize in recognition of pioneering studies in optical fibers, and in 2005 he received the Institute of Electrical Engineers/OSA John Tyndall Award for contributions that include the identification and understanding of the alteration in frequency and in the phase of light passing through a transparent optical fiber. The IEEE and OSA are two of the world's leading professional associations for the advancement of technology.

[The Russian Academy of Sciences](#) was established in 1724 and is recognized not only as the supreme scientific institution in Russia but as one of the most successful science academies in the world. Many of its members have made invaluable contributions to world science.