



KOÇ UNIVERSITY



DISTINGUISHED LECTURE

## Special Math-Science Seminar

**Speaker:** Professor Anthony E. Siegman, McMurtry Professor of Engineering Emeritus, Stanford University, Past President, Optical Society of America

**Title:** Elementary Optics: What happens when you add gain?

**Date and Time:** [Friday, May 16, 2003, 15:30](#).\*

**Place:** Room Z42, Science Building, Koç University, Rumelifeneri Yolu, Sariyer 34450 Istanbul.

**Abstract:** This talk will review and explore some of the interesting things that happen when you add gain to elementary optical systems. Fabry-Perot etalons, for example, can turn into laser amplifiers, and then oscillators. Optical waveguides and fibers can support propagating modes that are gain-guided rather than index-guided. And what about total internal reflection (TIR) from a "gainy" medium-- can it become greater than unity? Does "evanescent gain" really exist?

\* Refreshments to be served in Science Building, Room Z40 at 15:15.

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Note: Professor Anthony Siegman is visiting Koç University, Department of Physics, Microphotonics Research Laboratory and the Koç University Optical Society of America (OSA) Student Chapter through the OSA Distinguished Lecturer Program, he can be reached in Science Building, Room 163.