



KOÇ UNIVERSITY

# Math-Science Seminar

**Speaker:** Çetin Arıkan (Department of Physics, Istanbul University)

**Title:** Photoconductive Processes in Si d-doped GaAs structures

**Date and Time:** Thursday, May 24, 4:45 pm.\*

**Place:** Room Z42, Science Building, Koç University, Rumelifeneri Yolu, Sariyer 80910 Istanbul, Turkey.

**Abstract:** An investigation of photoconductivity in epitaxially grown Si delta doped GaAs structures will be presented. In-plane electronic transport in 2 dimensional electron gas (2DEG) formed by delta doped Si layer shows interesting photoconductive properties. In this study, modulated photocurrent as a function of modulation frequency, excitation intensity, applied electric field, temperature and DC background illumination were investigated. It has been shown that excitonic transitions in the system can be accentuated by fine tuning of experimental parameters. The results were compared with the theoretical calculations.

\*Refreshments to be served in Science Building, Room Z40 at 4:30 pm.