

NORTHWESTERN

P E R S P E C T I V E

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Quantum Leap for Research

Northwestern's new Center for Quantum Devices opened June 7 with Nobel laureates Leo Esaki, president of the University of Tsukuba, Japan, and Klaus von Klitzing of Germany's Max Planck Institute cutting the ceremonial red ribbon.

Established by Manijeh Razeghi, Walter P. Murphy Professor of Electrical Engineering and Computer Science, the center is believed to be the most advanced of its kind in the U.S. It has already received federal

grants totaling \$2.2 million.

The ribbon-cutting ceremony took place on the first day of a two-day conference, "Workshop on Future Trends of Quantum Structures and Device Applications," which was chaired by Razeghi. Leading researchers from industry, government and universities reported on the new micro-



Leo Esaki, Manijeh Razeghi and Klaus von Klitzing at the opening of the Center for Quantum Devices

electronic and optical devices being developed for computers and communications systems.

Most of the speakers discussed ways of taking advantage of quantum effects — the different kind of physical laws that apply to subatomic particles — in constructing new microscopic devices such as lasers and detectors. Several speakers, including Mildred S. Dresselhaus of the Massachusetts Institute of Technology and Northwestern physics professor John B. Ketterson, reported on the latest findings concerning the recently discovered carbon molecules called buckyballs and their possible applications to new devices.