

# **SEMINAR ANNOUNCEMENT**

## **“Einstein’s Telescope: The Hunt for Dark Matter and Dark Energy?”**

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Data from a wealth of cosmological observations insist that normal baryonic matter makes up less than 5% of the Universe – dark matter accounts for 23%, while the remaining 72% is not matter of any kind but some strange new substance, dubbed dark energy, about which we know very little. Gravitational lensing – dismissed by Einstein in 1936 as a “most curious effect” that had little chance of ever being observed – is currently one of the most powerful techniques for exploring this dark universe. Using the warps and dimples in spacetime described by Einstein’s theory of General Relativity as “cosmic lenses,” gravitational lensing allows us to search for black holes and planets within our own Galaxy; to map out the dark matter in distant galaxies, clusters and the cosmic web; and to detect the subtle influence of dark energy on the evolution and formation of structure in the Universe.

**Thursday, September 8<sup>th</sup>, 2011**

**12:00 – 1:00 pm**

**Room SI 117**

*Pizza and refreshments will be served before the seminar.*