

JOINT TUFTS/MIT COSMOLOGY SEMINAR

Detecting Cosmic Superstrings

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Abstract: At its beginning, the universe is believed to have grown exponentially in size via inflation but the precise mechanism remains a profound problem for cosmology and for fundamental physics. String theory suggests scenarios that involve the birth and survival of one-dimensional structures of cosmological sizes, namely, cosmic superstrings. Due to clustering similar to dark matter, numerous fossil remnants of these cosmic superstrings may exist within the galaxy. They can be revealed through the optical lensing of background stars and, once detected, can be studied in detail via gravitational wave emission. The talk will cover the clustering and the experimental prospects for hunting for the relics.

Tuesday, March 5, 2013, 2:30 pm
Robinson Hall, Room 250
Tufts University

Refreshments at 2:00 in Knipp Library, Room 251