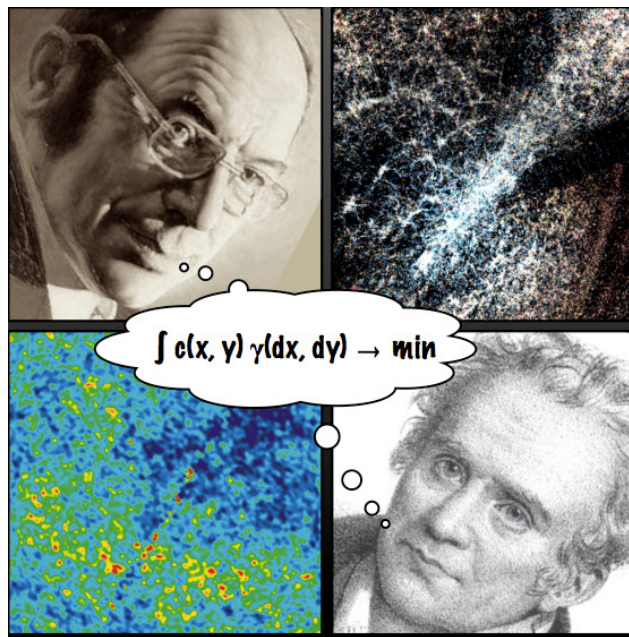


At the interface of dynamical and statistical cosmology and transport optimization

Supported by
The Lewiner Institute for Theoretical Physics and
the French National Research Agency (ANR) through the OTARIE project

March 22nd - 26th, 2009
Lewiner Institute Seminar Room
Technion, Haifa, Israel



Two apparently unrelated fields, both very fast moving, have recently started developing interactions. Cosmology has entered the age of high precision with large redshift surveys, CMB measurements and high-redshift 21 cm hydrogen surveys; an important issue has become the dynamical and statistical reconstruction of the early Universe from zero-redshift data. *Optimal transport*, a two-century old mathematical subject, is evolving into an efficient numerical method with diverse applications: one of the important inroads has been made into reconstruction of peculiar velocities of galaxies and initial conditions of the Universe from zero-redshift observations. One of the goals of this multidisciplinary workshop is to bring together experts from the fields of cosmology and mathematics and give them an opportunity to discuss optimization methods for analyzing very large data sets, such as those arising from cosmological observations.

Organizers: Adi Nusser (Technion, email: adi@physics.technion.ac.il)
Uriel Frisch (Observatoire de la Cote d'Azur, France)
Andrei Sobolevskii (Moscow State University, Russia)

Coordinator: Liz Yodim (liz@physics.technion.ac.il). Site: <http://physics.technion.ac.il/~transport/>