

BRIEF CURRICULUM VITA: Avishai Dekel (April 2012)

Personal: Born in Jerusalem 1951. Grew up in Ashkelon. Married (71), two boys, four granddaughters. IDF service (1969-72) and reserve duty (1972-2002).

Titles and Positions: B.Sc. (Physics & Math, 1975) and Ph.D. (Phys, 1980) from the Hebrew University. Prize postdoc at Caltech (1980-82). Assistant Prof. at Yale U. (82-85). Associate Prof. (86-91) and Professor (1991-) at HU. Andre Aisenstadt Chair of Theoretical Physics (2007-).

Prize Chairs: Blaise Pascal International Chair, Ecole Normale, Paris (2004-06). Miller Professor, UC Berkeley (2004). Distinguished Visiting Professor, UC Santa Cruz (1985-2012).

Specialization: Theoretical physics, astrophysics, **cosmology**, formation and dynamics of galaxies and large-scale structure in the Universe, dark matter and dark energy. Teaching physics, science education and popularization.

Publications: About 150 professional articles in refereed journals of high impact. About 14,000 citations, mostly as lead author in theory papers. H=61 (NASA ADS). Listed as a Highly Cited Researcher by ISI. Several invited lectures in international conferences per year. Many popular science articles. An advanced textbook on Formation of Structure in the Universe (Cambridge U. Press 1997).

Main Scientific Contributions: The standard model for supernova feedback and the formation of dwarf galaxies (2000 citations). Understanding the structure and evolution of dark-matter halos (2500). Analyzing the cosmic velocity field for determining the density of dark matter and dark energy (2100). Dynamics of large-scale structure and the relation between galaxies and the underlying dark matter (1200). Understanding basic processes in galaxies, and in particular the central role of cold streams in galaxy formation, including the galaxy bimodality, the intense star-forming galaxies at high redshift, and the quenching of star formation in ellipticals (2500 citations to ongoing work).

Major Duties: Standing Committee and the committee for academic policy at HU (2008-12). President, the Israel Physical Society (2007-2011). Head, Authority for the Community and Youth at HU (05-11). Head, Racah Institute of Physics at HU (97-01). Leader of the Center for Understanding the Universe (00-). The executive Committee of the Board of Trustees of HU (01-03). Head, The computer Committee, HU (1987-89). Consultant for grant agencies ISF, BSF, GIF, NASA. National Committee for Supercomputing (96-05). Editor in Research Letters in Physics and in Journal of Cosmology.

Conferences: Head of Science Organizing Committees of 16 international conferences, and member of many organizing committees. Member of the conference committee of the International Astronomical Union. Director of 4 winter schools in physics and 5 research programs at the Institute for Advanced Studies, HU (1990-12).

Graduate Students: Direct supervision at HU of 24 postdocs, 13 PhD, 18 MSc, 8 Amirim. Co-advising 15 PhD at UCSC, Yale, Princeton.

Grant Support: PI of 24 competitive research programs, 3-4 years each, 1987-12 (ISF, BSF, GIF, DIP, Ministry of Science, Blaise Pascal). CoI of 8 grants from NASA, NSF and EU.