

Thomas Banks  
Santa Cruz Institute for Particle Physics (SCIPP)  
UC Santa Cruz Department of Physics

**PROFESSIONAL PREPARATION**

Reed College	Physics/Math	B.A.	1969
Massachusetts Institute of Technology	Physics	Ph.D.	1973

**POST DOCTORAL APPOINTMENTS**

1973-1975                      Tel Aviv University

**APPOINTMENTS**

2000-present	Professor of Physics, University of California, Santa Cruz
1989-present	Professor of Physics, Rutgers University
1986-1989	Professor of Physics, University of California, Santa Cruz
1980-1986	Associate Professor of Physics, Tel Aviv University
1982-1984	Visiting Associate Professor of Physics, Stanford University and Stanford Linear Accelerator, Member Institute for Advanced Study, Princeton
1977-1980	Senior Lecturer with tenure, Tel Aviv University
1975-1977	Lecturer, Tel Aviv University

**SELECTED PUBLICATIONS PERTINENT TO THIS PROPOSAL (Primary Author Only)**

1. A Pyramid Scheme for Particle Physics, T. Banks, J-F Fortin, JHEP 0907 (2009) 046
2. Holographic Space-time and its Phenomenological Implications, T. Banks, Int. J. Mod. Phys. A25 (2010) 4875-4887
3. Direct Detection of Dark Matter Electromagnetic Dipole Moments, T. Banks, J-F Fortin, S. Thomas, arXiv: phe-ph/1007.5515
4. Holographic Space-time: The Takeaway, arXiv: hep-th/1109.2435
5. Holographic Theories of Inflation and Fluctuations, arXiv: hep-th/1111.4948

**SYNERGISTIC ACTIVITIES**

Author of a textbook on quantum field theory: "Modern Quantum Field Theory, A Concise Introduction", published by Cambridge University Press in 2008.

2011	Elected to American Academy of Arts and Science
2010	Co-organizer and Lecturer at the TASI Summer School. Co-editor, with M.Dine and S.Sachdev, of the TASI volume: Applications of string theory from the meV scale to the Planck Scale
2003	Co-organizer String Cosmology Workshop at KITP Santa Barbara
2003-2007	Served on DOE review panels for CalTech, MIT and Princeton

## **COLLABORATORS & OTHER AFFILIATIONS**

**a) Collaborators**

Since 1999 my principle collaborator has been W. Fischler, U. Texas, Austin. Also worked with N. Seiberg, H.Haber, M.Dine

**b) Graduate Advisor**

Carl Bender, Professor of Mathematical Physics, Washington U., St. Louis

**c) Postdoctoral Advisor**

D. Horn, Tel Aviv University

**d) Advisees**

Graduate Students: (since 2000) L.Motl, L.Mannelli, K. van den Broek, J-F Fortin, S. Echols, J.Jones, T.J. Torres (current)

Postdoctoral Scientists: M.Graesser, H.Liu, E.Gorbatov, P. Fox, L.Carpenter, G. Festuccia, A. Rajaraman, M.Rozali, C. Park, P. Draper, C. Papageorgakis.