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Fred Cooper received his B. S. in Physics *summa cum laude* from City College of New York in 1964 and his Ph.D. in Theoretical Physics from Harvard in 1968 under the direction of Sheldon Lee Glashow. He has held the following positions: Lecturer, 1964, the City College of New York; Instructor, 1968-70, Cornell University; Assistant Professor, 1970-75, at the Belfer Graduate School of Science, Yeshiva University, New York; Member, 1977, The Institute for Advanced Study, Princeton; Visiting Professor, 1985-86, Boston University; Visiting Professor, 1988-89, Brown University;Visiting Professor, University of New Hampshire 1993. Research Professor, University of New Hampshire 1994-1995. Visiting Professor 1998-2000 Boston College. He has been a Staff Member in T-8 since 1975, has been Deputy Group Leader from 1982-1994 Group Leader from 1995-2000. He has been a member of the Santa Fe Institute since 1991.

Areas of Technical Specialization: Elementary Particle Physics, Relativistic Heavy Ion Collision Physics, Nonequilibrium Phase Transitions, Cosmology, Nonlinear Systems, Quantum Chaos, Hydrodynamics and Transport Theory.

Honors, Fellowships, Grants: Borden Freshman Prize, City College of New York (CCNY), 1960;Phi Beta Kappa, 1963; Ward Medal in Physics (CCNY), 1964; Woodrow Wilson Fellow, 1964-65; National Science Foundation Fellow, 1967-68; Frederick Cottrell Fellow (Research Corporation), 1970-72; Principal Investigator, National Science Foundation Grant, 1971-75; Investigator,DOE Grant 1975-present; Co-Principal Investigator High Energy Physics DOE Grant 1990-present; US-Israel BSF grant 1993-1996; Principal Investigator LDRD Grant 1995-present; Member-Santa Fe Institute, 1991-present.

Professional Activities: Member, APS; Former Vice Chairman, Physics Section of the New York Academy of Sciences; Editor, Recent Advances in Particle Physics, Annals of the New York Academy Vol. 229 (1974); Editor, Proceedings of the Santa Fe Workshop on Intermittency (1990);

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Publications

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Related Experience

1. President Kagyu Shenpen Kunchab Tibetan Buddhist Center 1985-Present

2. Meditation Teacher and Spiritual Counselor 1989-Present

Invited Talks since 1995

1. F. Cooper, "Dynamics of the Chiral Phase Transition," Quark '95, Jan, 1995.

2. F. Cooper, "Nonequilibrium Time Evolution Problems Using Schwinger's Closed Time Path Formalism," Unified Symmetry Conference, Miami, Feb 2, 1995.

3. F. Cooper, “Schwinger’s CTP Formalism and Time Evolution Problems,”
   Carnegie Mellon University, March 1995.

4. F. Cooper, “Disoriented Chiral Condensates and the Time Evolution of the Quark-Gluon Plasma,” Cornell University, March 1995.

5. F. Cooper “Time Evolution Problems in Quantum Field Theory” Brown University, May 1995; Institute of Nuclear Science, Univ. of Washington September 1995.

6. F. Cooper “Quantum Dynamics of a non-equilibrium Chiral Phase Transition” November 28 1995 Yale University; Dec. 4, 1995 University of the Negev, Israel; December 6, 1995 Tel-Aviv University.

7. F. Cooper “ Disoriented Chiral Condensates”; Feb. 27,1996 University of Arizona.

8. F. Cooper “Time Dependent Variational Methods, from Soliton Dynamics to Quantum Chaos”. University of Rhode Island, April 1996, Carnegie Mellon University August 1996, Los Alamos NP2 September 1996.

9. F. Cooper “From Landau’s Hydrodynamical Model to Field Theory Calculations of Multiparticle Spectra” CarruthersFest October 1996, University of Pittsburgh, November 1996.

10. F. Cooper “Time Dependent Variational Methods” Duke University Feb. 25 , 1997

11. F. Cooper “Multiparticle Production in High Energy Collisions” Duke University Feb. 26, 1997.

12. F. Cooper “ Field Theory approach to Multiparticle Production” Vanderbilt University– Frontiers in Contemporary Physics Conference May 1997.

13. F. Cooper “ Dilepton Production during a Chiral Phase Transition” LBL July 1997.

14. F. Cooper “Unusual dileptons at RHIC- A Field Theory approach based on a non-equilibrium Phase Transition”. BNL-RIKEN Workshop September 1997.

15. F. Cooper “ Variational Methods in Physics” Boston College, November 1997.

16. F. Cooper “ Dileptons from a Chiral Phase Transition” Yale University June 1998

17. F. Cooper “Initial Value Problems in Quantum Field Theory and the Path Integral representation of Schiwnger CTP formalism.” Keynote Lecture at 6th International Conference on Path Integrals. Florence, Italy August 1998.

18. F. Cooper “Inclusive Particle Production at RHIC” Plenary Lecture at In and Out of Equilibrium Workshop. Brookhaven-Riken October 1998

19. F. Cooper “ SUSY and Quantum Mechanics” Colloquium at Boston College November 1998.

20. F.Cooper "Dileptons at RHIC" MIT seminar February 1999.

21. F. Cooper "Dynamics of the Chiral Phase Transition" Brown Seminar March 1999.

22. F. Cooper " A Two Dimensional Model having QCD like Phase Structure" LANL Seminar August 1999.

23. F. Cooper " Color-Superconductivity and the Phase Structure of QCD at Finite Density" UNH Seminar Feb. 2000.

24. F. Cooper " Dynamics of the chiral phase transition at finite chemical potential" MIT seminar June 21,2000. Riken-BNL invited talk July 26,2000; Seminar at Northeastern October 2000. Los Alamos National Labs March 2, 2001.