Nicholas Petropoulos

Address: Department of Physics & Astronomy

Schuster Laboratory, Brunswick St The Victoria University of Manchester

Manchester M13 9PL, UK

Phone: 0161 275 42 11 (work), 0161 275 2783 (home)

Fax: 0161 275 42 18

E-mail: nicholas@theory.ph.man.ac.uk

Web page: http://theory.ph.man.ac.uk/nicholas/home.html
Birth: 31 March 1959, Agios Konstantinos, Lokrida, Greece

Marital Status: Single Citizenship: Greek

Languages: Greek (native), English

Education

Sep 1996 – Dec 2000: PhD in theoretical high energy physics.

Thesis Title: Linear sigma model and chiral symmetry at finite temperature.

The Victoria University of Manchester, UK.

Supervisor: Dr Mike Birse.

Research was focused on the study of the meson sector (pions-sigma) of the linear sigma model at finite temperature as an effective theory to investigate the QCD phase transition. An important issue of the project is the propagating properties of pions within a hot plasma.

Sep 1992 - Apr 1994: MSc in theoretical high energy physics.

Thesis Title: Baryogenesis at the electroweak phase transition.

The Victoria University of Manchester, UK.

Supervisor: Dr Mike Birse.

Research involved a possible explanation of baryon excess in the universe in the framework of the Standard Model of electoweak interactions.

Mar 1992 – Jul 1992: Postgraduate courses in theoretical physics.

"Democritus" National Center for Nuclear Resarch, Greece.

Advanced introductory courses for PhD students on subjects as: Quantum Mechanics, Group Theory, Electrodynamics and Classical Mechanics.

Mar 1990 – Sep 1990: Vocational course in computing.

Institute of Research and Technology, Greece.

Course was funded by the EU and involved studies on the architecture of microprocessors, applications and introductory programming in C.

Oct 1977 - Oct 1989: Physics degree.

University of Ioannina, Greece.

Full–time degree lasts four years, but I did it part–time. At the same period I worked as a full–time teacher of physics and I did my National Service in the Greek Army (see also other experience).

IT skills

OS: UNIX (advanced user), LINUX (advanced user), WINDOWS (not a frequent user), VAX/VMS (average user, haven't use it since 1996).

Programming Languages: FORTRAN (experienced, all my MSc and PhD calculations have been done using FORTRAN 77, although I have also used FORTRAN 90), C and C++ (beginer).

Software Packages : MATHEMATICA (intermediate user), PAW (Physics Analysis Workstation, average user) and other graphics packages as GNUPLOT and XMGR (average user). Other skills include basic knowledge of HTML and LATEX (very experienced user).

Work and other experience

Sep 1997 - Jul 2000: Mathematics tutor to first year students in Physics, University of Manchester.

Sep 1997 – present: Resintential tutor in Moberly Hall, University of Manchester. Administrative post which deals with the welfare and pastoral care of residents (mainly overseas postgraduate students).

May 1994 - Aug 1996: Full-time teacher of physics (A-Level) in the private sector in Greece.

Sep 1981 – **Aug 1992**: Full–time teacher of physics in the private sector (various private schools) in Athens (Greece).

Jul 1978 – Jul 1981: While still at university I started my career as a teacher of physics working part-time and full-time during summer vacations.

Publications

- 1. "Linear Sigma model and chiral symmetry at finite temperature", J. Phys. G: Nucl. Part. Phys. 25, 2225-2242 [hep-ph/9807331].
- 2. "Thermal effective potential of the linear sigma model" Poster presented at "5th International Workshop on Thermal Field Theories and Their Applications", Regensburg, Germany, 10-14 August 1998 Published in the proceedings [hep-ph/9809363].

Talks and posters

- 1. Talk with title "Linear sigma model at finite temperature: Beyond the Hartee approximation", presented at "The 1999 nuclear and particle physics division conference of the Institute of Physics", Salford University, UK, 14 April 1999.
- 2. Poster with title "Chiral symmetry at finite temperature", presented at Manchester University, UK, September 1998
- 3. Poster with title "Thermal effective potential of the linear sigma model", presented at "5th International Workshop on Thermal Field Theories and Their Applications", Regensburg, Germany, 10-14 August 1998
- 4. Talk with title "Chiral symmetry at finite temperature", presented at "The 1998 Institute of Physics high energy particle physics group conference", Manchester University, UK, 16 April 1998.
- 5. Talk with title "Thermal effective potential of the linear sigma model", presented at "Friday seminar series" of the theory group at Manchester University, UK, 5 December 1997.
- 6. Poster with title "Chiral symmetry at finite temperature", presented at Manchester University, UK, September 1997.

Summer schools and conferences

1. "The annual UK particle theory winter meeting", Rutherford Appleton Laboratory, Oxford, UK, 15–17 Dec 1999.

- 2. "The 1999 nuclear and particle physics division conference of the Institute of Physics", Salford University, UK, 12-14 Apr 1999.
- 3. "The annual UK particle theory winter meeting", Rutherford Appleton Laboratory, Oxford, UK, 16–18 Dec 1998.
- 4. Summer school and conference: "5th International Workshop on Thermal Field Theories and Their Applications", Regensburg, Germany, 5–14 August 1998
- 5. "Annual conference of the high energy particle physics group of the Institute of Physics (IoP Particle Physics 1998)" Manchester University, UK, 14–16 Apr 1998.
- 6. "Strange particle Jubilee: the 50th anniversary of the discovery of the strange particles", Manchester University, UK, August 1997.

Memberships

Graduate member of "The Institute of Physics", UK.

Other information

While serving in the Greek Army I had special administrative status being responsible for organizing the training programs.

Full clean driving lisence for cars and motorbikes held since 1986.

Referees

Dr. Mike Birse Department of Physics and Astronomy, University of Manchester,

Brunswick St, Manchester, M13 9PL, UK

mike.birse@man.ac.uk Tel: 0161 275 4206

Dr. Graham Shaw Department of Physics and Astronomy, University of Manchester,

Brunswick St, Manchester, M13 9PL, UK

graham.shaw@man.ac.uk

Tel: 0161 275 4203