Curriculum Vitae

Name(first, middle, surname): **Wafaa K.Y. Khater**

Born: **22nd July, 1975 in Ein Sinia suburb, Ramallah**

Sex: **Female** Citizenship: **Palestinian**

Current Position: **Assistant Professor at the Physics Department, Birzeit University, P.O. Box 14, West Bank, Via Israel**

E-mails: **wkhater@birzeit.edu** **wafaa.khater@ift.uib.no** **wafaa.khater@cern.ch**

`http://www.ift.uib.no /~wafaa`

Education:

1999 - 2003 Department of Physics and Technology, University of Bergen, Norway
Dr. scient. degree in Theoretical Particle Physics
Supervisor: Prof. Per Osland
Thesis title: Top quark pair production and CP-violating Higgs sector
Defence committee: Cecilia Jarlskog, Jan Olav Eeg and Dieter Röhrich

1998 - 1999 Department of Physics and Technology, University of Bergen
MPhil. in Theoretical Particle Physics
Thesis Title: Two-Photon Decay of Non-Standard Higgs Bosons
Thesis adviser: Prof. Per Osland

1993 - 1998 Birzeit University, Palestine
B.Sc.; **Major:** Physics; **Evaluation:** Very good.
Teaching Certificate, qualification to teach physics at high schools

1990 - 1993 Ramallah Girls Secondary School, Palestine
General Secondary Exam (Tawjihi) Stream: Scientific
Score: 94.5% (Ranked 3rd in Ramallah District)

(More details regarding the courses taken, the educational and the grading system during each of the above-mentioned stages, can be read off the relevant Academic Transcripts. Upon request)

Research Interests:

Higgs Physics Beyond the Standard Model and scalar Dark Matter,
CP violation and Mathematical Physics.
Other Interests: Women in physics in the developing countries.

Languages:

Arabic (native tongue). **English**, excellent working knowledge
including excellent speaking and writing skills. **Norwegian**, just passable.

Publications:

- A. W. El Kaffas, W. Khater, O. M. Ogreid and P. Osland, "Consistency of the Two Higgs Doublet Model and CP violation in top production at the LHC," Nucl. Phys. B **775** (2007) 45 [arXiv:hep-ph/0605142] .
- W. Khater and P. Osland, "CP-violating top Yukawa couplings in the 2HDM," Contributed to a Workshop on CP studies and non-standard Higgs physics, CERN Yellow Report, 2006 [arXiv:hep-ph/0608079] .
- W. Khater "Women and Physics in The Palestinian Territories" Proceedings of the 2005 Workshop for Nordic Network for Women in Physics (NorWip).
- W. Khater and P. Osland, "CP violation in top quark production at the LHC and two-Higgs-doublet models," Nucl. Phys. B **661** (2003) 209 [arXiv:hep-ph/0302004] .
- W. Khater and P. Osland, "Maximal CP nonconservation in the two-Higgs-doublet model," Acta Phys. Polon. B **34** (2003) 4531 [arXiv:hep-ph/0305308] .

Workshops and Research Visits:

- **LHC-Cosmology Interplay and BSM Institute: New Physics and the LHC**, Organised by the Theory Division at Conseil Européen pour la Recherche Nucléaire CERN, Geneva; June-September 2007.
- **First Workshop for Nordic Network for Women in Physics (NorWip)**, Bergen, Norway; August 2005.
  Talk: Women and Physics in the Palestinian Territories
- Physicum, Helsinki; September-October 2003.
- **Third Nordic LHC Physics Workshop**, University of Oslo; March, 2001.

Schools:

- **Summer School on Particle Physics**, International Center for Theoretical Physics (ICTP), Trieste, Italy; June-July 2001.
  Function: Participant. **Duration**: Three weeks.
  Topics covered (interesting only): SM and Higgs physics, Astroparticle physics, SUSY phenomenology, Grand Unification and SUSY, QCD, CP-violation and B-physics, Extra dimensions.
  Lecturers: J. Ellis, K. Olive, H. Haber, G. Ross, E. Lisi, H. Quinn, J.C. Pati, N. Arkani-Hamed.

- **Nordic Winter School on Particle Physics and Cosmology**. Organised by Nordita. Held in Gausdal, Norway; January, 2001.
  Function: Participant. **Duration**: One week.
  Lecturers: E. Copeland, M. Laine, A. Blondel, F. Ravndal, J. Cline, P. DiVecchia and R. Ball.

Research Talks:

- **Title**: Effects of CP-violating Higgs sector of the 2HDM on top pair production at the LHC. Presented as a 20-minute talk at the **Seventh Nordic LHC Physics Workshop**, held at the Institutt for Fysikk og Teknologi, Bergen; May, 2003

- **Title**: Higgs-generated CP-violation in top-pair production at the LHC (updated). Presented as a 20-minute talk at the **Sixth Nordic LHC Physics Workshop**, held at the The Ångström Laboratory, Uppsala; November, 2002

- **Title**: Higgs-generated CP-violation in top-pair production (updated). Presented as a 20-minute talk at the **Fifth Nordic LHC Physics Workshop**, held at the Physicum, Helsinki; May, 2002

- **Title**: Higgs-generated CP-violation in top-pair production. Presented as a 20-minute talk at the **Fourth Nordic LHC Physics Workshop**, held at the Stockholm Center for Physics Astronomy and Biotechnology; November, 2001

Computer Skills:

General computing experience, including:

- Significant experience of using the algebraic programming system REDUCE 3.7, mostly for my research in high energy physics; handling one-loop level Feynman diagrams and calculating cross sections.
- Knowledge of programming in FORTRAN used particularly in my work for my master thesis and further research.
- Extensive knowledge of the typesetting program, LaTeX.
- Good experience of using softwares as: PAW (Physics Analysis Workstation), Minuit (Function Minimization and Error Analysis) and LoopTools.
- Good working knowledge of DOS, Windows and UNIX based operating systems, including extensive Linux experience.

References:

Professor Per Osland	Institutt for Fysikk og Teknologi Universitetet i Bergen Allégt. 55, N-5007 Bergen, Norway	Per.Osland@ift.uib.no
Professor Cecilia Jarlskog	TH-Division, CERN CH-1211 Geneva 23, Switzerland	Cecilia.Jarlskog@cern.ch
Professor Anna Lipniacka	Institutt for Fysikk og Teknologi Universitetet i Bergen Allégt. 55, N-5007 Bergen, Norway	Anna.Lipniacka@cern.ch
Professor Laszlo Csernai	Institutt for Fysikk og Teknologi Universitetet i Bergen Allégt. 55, N-5007 Bergen, Norway	csernai@ift.uib.no
Professor Wa'el Qarain	Physics Department, Birzeit University P.O. Box 14, Palestine	wqaran@birzeit.edu

For other References, contact me at: wkhater@birzeit.edu