

Pauline Gagnon

Title: Senior Research Scientist

Home institute: Department of Physics
Indiana University
Bloomington, IN 47405

Country of citizenship: Canada

Education:

B.S. (Physics)	1978	Université du Québec à Montréal
M.S. (Physics)	1988	San Francisco State University
Ph. D (Particle Physics)	1993	University of California in Santa Cruz

Fellowships:

University of California President's Dissertation Year Fellowship, Fall 92
Foreign Student Tuition Fee Waiver, San Francisco State University, Spring 87
Foreign Student Tuition Fee Waiver, San Francisco State University, Spring 86

Employment:

Indiana University	2003- now	Senior Research Scientist
Indiana University	1999-03	Associate Research Scientist
Center for Research in Particle Physics	1995-99	Research Fellow
Carleton University, Ottawa	1993-95	Research Fellow

Other:

Editor of ATLAS e-news, the ATLAS collaboration internal newsletter since May 2006
Responsible for Quality Assurance tests for the TRT Barrel for ATLAS 2002-2005
Referee for the European Physical Journal for two papers in 1998 and 2000
Co-convenor, b quark parallel session, American Physical Society, DPF 2000
OPAL co-convenor of the Heavy Flavour Working Group 1999-2001
OPAL representative on the LEP-wide b physics steering group 1998-2002
OPAL representative on the LEP-wide V_{ub} working group 1998-2002
OPAL representative on the LEP-wide V_{cb} working group 1998-2002

Selected publications:

- 1) *Sensitivity to an invisibly decaying Higgs boson with ATLAS data*, P. Gagnon, R. Goncalo, G. Hanniger, A. Ludwig, W. Mader, G. Oakham, M. Schram, S. Subramania, arXiv:0901.0512, published in:
- 2) *Expected Performance of the ATLAS Experiment - Detector, Trigger and Physics*, the ATLAS Collaboration, arXiv:0901.0512.
- 3) *Pioneer and mentor: A tribute to Engin Arik and her support for Women in Physics*, P. Gagnon., ATL-COM-GEN-2008-018, to appear in *Balkan Physics Letters*.
- 4) *The ATLAS Transition Radiation Tracker (TRT) proportional drift tube: design and performance*, Abat, E. et al., ATLAS TRT Collaboration, *J. Instrum.* 3 (2008) P02013.
- 5) *The ATLAS TRT Barrel Detector*, Abat, E. et al., ATLAS TRT Collaboration, *J. Instrum.* 3 (2008) P02014.
- 6) *Invisible Higgs boson decays in the Z^0H^0 and $W^\pm H^0$ channels*, P. Gagnon, ATL-COM-PHYS-2003-011.

- 7) *Time-over-threshold and high-threshold multiplicity studies in the 2002 Monte Carlo GEANT 3 simulation of the ATLAS Transition Radiation Tracker*, P. Gagnon, F. Luehring, ATL-COM-INDET-2002-016.
- 8) *Search for a low mass CP-odd Higgs boson in e^+e^- collisions with the OPAL detector at LEP2*, OPAL Collaboration, G. Abbiendi et. al., CERN-EP-2002-058, accepted by Eur. Phys. J. C.
- 9) *Production, Spectroscopy and Decay of Orbitally Excited B mesons*, P. Gagnon, International Journal of Modern Physics A, Vol. 17, No. 2 (2002) 145-155.
- 10) *Combined results on b-hadron production rates and decay properties*, ALEPH, CDF, DELPHI, L3, OPAL, SLD Collaborations, June 2001, CERN-EP-2001-050.
- 11) *Combined results on b-hadron production rates, lifetimes, oscillations and semileptonic decays*, ALEPH, DELPHI, L3, OPAL, CDF and SLD Collaborations, March 2000, CERN-EP-2000-096.
- 12) *Measurements of inclusive semileptonic branching fractions of b hadrons in Z0 decays*, OPAL Collaboration, G. Abbiendi et. al., Eur. Phys. J. C13 (2000) 225-240.
- 13) *Measurement of the form factor ratios for $D^\pm \rightarrow K^{0*} e^\pm \nu$* , E791 Collaboration, Phys. Rev. Lett. 80 (1998) 1393.
- 14) *Measurement of the semileptonic branching fraction of inclusive b baryon decays to Λ* , OPAL Collaboration, K. Ackerstaff et. al., Z. Phys. C 74 (1997) 423-435.

Invited talks at International Conferences:

- 1) *My detector is bigger than yours: the role of women in large international scientific projects*, Invited talk given at the 14th International Conference of Women in Engineering and Science, Lille, France in July 2008.
- 2) *Pioneer and mentor: A tribute to Engin Arik and her support for Women in Physics*, Invited talk given to the [International Conference on Particle Physics, in Memoriam Engin Arik and her Colleagues](#), Istanbul, Turkey in October 2008.

Presentations at international conferences:

- 1) *Search for the Higgs boson at LEP beyond the Standard Model*, contributed talk to the IXth International Symposium on Particles, Strings and Cosmology, Mumbai, India, January 2003.
- 2) *Production, Spectroscopy and Decay of Orbitally Excited B mesons at LEP*, contributed talk to the XXXth International Conference on High Energy Physics, Osaka, Japan, August 2000.
- 3) *Semileptonic b branching fractions at LEP*, contributed talk to the International Europhysics Conference on High Energy Physics, Tampere, Finland, July 1999.
- 4) *Extracting CKM matrix elements from semileptonic b decays*, invited talk given at the Physics In Collision Conference, Ann Arbor, MI, June 1999.
- 5) *Semileptonic b decays at the Z^0* , contributed talk to the XXIX International Conference on High Energy Physics, Vancouver, Canada, July 1998.
- 6) *Semileptonic branching fractions of beauty and charm hadrons*, contributed talk to the IIIrd International Conference on Hyperons, Charm and Beauty Hadrons, Genova, Italy, June 1998.
- 7) *La physique des particules au CERN: succès, énigmes et projets*, invited talk in the Subatomic Physics section of the 66ième Congrès de l'ACFAS (French Canadian Association for the Promotion of Science). Québec, Canada, May 1998.
- 8) *B decays in the light of Heavy Quark Effective Theory*, contributed talk to the Frontiers in Contemporary Physics, Nashville, TN, May 1997.

- 9) *Measurement of the ratio $BR(\Lambda_b \rightarrow \Lambda l \nu)/BR(\Lambda_b \rightarrow \Lambda X)$* , contributed talk to the 2nd International Conference on Hyperons, Charm and Beauty Hadrons, Montréal, Canada, August 1996.
- 10) *Semileptonic decays of Charm in Fermilab E791 data for $D^+ \rightarrow K^{*0} e^+ \nu$ and $D^+ \rightarrow K^{*0} \mu^+ \nu$* , contributed talk to the 5th International Symposium on Heavy Flavour Physics, Montréal, Canada, July 1993.