Biographical Sketch

Paul P.H. Wilson, Professor, Dept. of Engineering Physics
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A. PROFESSIONAL PREPARATION

College/University	Major	Degree & Year	
U. of Toronto	Engineering Science	B.A.Sc.	1992
U. of Wisconsin-Madison	Nuclear Engineering	MS	1994
Technical University of Karlsruhe	Mechanical Engineering	Dr-Ing	1998
U. of Wisconsin-Madison	Nuclear Engineering	Ph.D.	1999
U. of Wisconsin-Madison	Fusion Technology	Post-doc	1999-2001

B. ACADEMIC/PROFESSIONAL APPOINTMENTS

1/2013–present Professor, Dept. of Engineering Physics, U. of Wisconsin-Madison
6/2008–12/2012 Associate Professor, Dept. of Engineering Physics, U. of Wisconsin-Madison
7/2001–6/2008 Assistant Professor, Dept. of Engineering Physics, U. of Wisconsin-Madison

C. PRODUCTS

Publications and products most closely related to this proposal

- G.V. Wilson, D.A. Aruliah, C.T. Brown, N.P. Chue Hong, M. Davis, R.T. Guy, S.H.D. Haddock, K. Huff, I. Mitchell, M. Plumbley, B. Waugh, W.P. White, P.P.H. Wilson, "Best Practices for Scientific Computing," *PLOS Biology*, **1** (2014) doi:10.371/journal.pbio.1001745
- A. Scopatz, P.K. Romano, P.P.H. Wilson, K.D. Huff, "PyNE: Python for Nuclear Engineering", *Trans. of the Am. Nuclear Society*, **107**, pp. 985-987 (2012)
- K. Huff, A. Scopatz, N. Preston, P.P.H. Wilson, "Rapid Peer Education of a Computational Nuclear Engineering Skill Suite," *Trans of the Am. Nuclear Society*, **104**, pp. 103-104 (2011)

Other related publications

- R.N. Slaybaugh, T.M. Evans, G.G. Davidson, P.P.H. Wilson, "Multigrid in Energy Preconditioner for Krylov Solvers," *J. Comp Physics*, **242**, pp. 405-419 http://dx.doi.org/10.1016/j.jcp.2013.02.012
- T.J. Tautges, P.P.H. Wilson, J.A. Kraftcheck, B.M. Smith, D.L. Henderson, "Acceleration Techniques for Direct Use of CAD-Based Geometries in Monte Carlo Radiation Transport," Proceedings of International Conference on Mathematics, Computational Methods & Reactor Physics (M&C2009), Saratoga Springs, NY, May 3-7, 2009.
- P.P.H. Wilson, et al, "State-of-the-art 3-D radiation transport methods for fusion energy systems," *Fus. Eng. & Design*, **83**, pp. 824-833 (2008)
- Direct Accelerated Geometry Monte Carlo (DAGMC) Radiation Transport toolkit, http://svalinn.github.com/DAGMC/

D. SYNERGISTIC ACTIVITIES AND CONTRIBUTIONS

9/2012–present Faculty Director, Advanced Computing Infrastructure, U. Wisconsin-Madison
9/2012-present Steering Committee, Holtz Center for Science and Technology Studies, U. Wisconsin-Madison
4/2008–6/2013 Chair, Energy Analysis and Policy program, U. of Wisconsin-Madison

E. COLLABORATORS AND OTHER AFFILIATIONS

Collaborators Over the Last 48 months:

University of Wisconsin: Prof. M.L. Corradini, Prof. D.L. Henderson, Prof. G.L. Kulcinski, Prof. G.A. Moses, Dr. M. Sawan, Dr. L. El-Guebaly, Dr. M. Anderson, R. Agasie, Dr. A. Davis, Dr. T. Bohm, Dr. A. Scopatz, Dr. P. DeLuca, Dr. J. Blanchard, Dr. P. Meier, Dr. M. Livny, Dr. D. Brossard
Sandia National Laboratories: Dr. R. Lipinski
Colorado School of Mines: Dr. J. King
National Renewable Energy Laboratory: Dr. P. Denholm
Univerity of Texas: Dr. E. Schneider
University of Utah: Dr. Y. Livnat
University of Idaho: Dr. R. Hiromoto
Phoenix Nuclear Laboratory: Dr. R. Radel
Argonne National Laboratory: Dr. T. Tautges
Oak Ridge National Laboratory: Dr. K. Clarno, Dr. T. Evans, Dr. J. Wagner, Dr. R. Grove
Idaho National Laboratory: Dr. M.L. Dunzik-Gougar, Dr. S. Piet, Dr. J. Parry, Dr. Brent Dixon
Karlsruhe Institute of Technology: Dr. U. Fischer, Dr. A. Serikov, Dr. D. Leichtle

Graduate and Postdoctoral Advisors

Postdoctoral: Prof. Gregory A. Moses, U. Wisconsin-Madison
Ph.D.: Prof. Douglass L. Henderson, U. Wisconsin-Madison
Dr.Ing: Dr. Ulrich Fischer, Karlsruhe Research Center, Karlsruhe, Germany

Thesis Advisor and Postgraduate-Scholar Sponsor over the Last Five Years

Postgraduate-scholars: Dr. Phiphat Phruksarojanakun (Nuclear Regulatory Commission of Thailand), Dr. Rachna Jain (Exxon-Mobil)
Total Number of Postdoctoral Scholars Sponsored: 2

Past thesis advisees: Dr. Po Hu (Shang-hai Jiaotong U.), Dr. Jeremy Roberts (Kansas State University), Mr. Ryan Grady (Exelon), Mr. Michael Priaulx (Exelon), Rev. Kyle Oliver (Virginia Theological Seminary), Dr. Brian Kiedrowski (Los Alamos National Lab), Dr. Brandon Smith (Los Alamos National Laboratory), Mr. Damien Moule, Mr. Erik Nygaard (B&W), Mr. Patrick Snouffer (Sandia National Laboratory), Dr. Rachel Slaybaugh (U.C. Berkeley), Dr. Ahmad Ibrahim (Oak Ridge National Laboratory), Dr. Kathryn Huff (U.C. Berkeley), Dr. Stuart Slattery (Oak Ridge National Laboratory), Mr. Eric Relson, Mr. Chis Staum (Westinghouse), Mr. Ben Schmitt (GE/GNF), Mr. Geoff Bull (UW-Madison), Mr. Tae Wook Ahn (Entergy), Ms. Marina Arabidze (Rep. Of Georgia)
Total Number of Graduate Students advised: 19

Current thesis advisees (9):, Ms. Kerry Dunn, Mr. Matthew Gidden, Mr. Robert Carlsen, Ms. Chelsea D'Angelo, Mr. Elliott Biondo, Mr. Moataz Harb, Mr. Lucas Jacobson, Ms. Arrielle Opotowsky, Mr. Patrick Shriwise