Biographical Sketch

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A. PROFESSIONAL PREPARATION

College/University	<u>Major</u>	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

- R.N. Slaybaugh, T.M. Evans, G.G. Davidson, P.P.H. Wilson, "Multigrid in Energy Preconditioner for Krylov Solvers," *J. Comp Physics*, in press http://dx.doi.org/10.1016/j.jcp.2013.02.012
- o B.M. Smith, T.J. Tautges, P.P.H. Wilson, "Sealing Faceted Surfaces to Achieve Watertight CAD Models," 19th International Meshing Roundtable, Chattanooga, TN, October 3-6, 2010
- 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.
- o 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 Chair, Energy Analysis and Policy program, U. of Wisconsin-Madison

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

Forschungszentrum Karlsruhe: 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), Dr. 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