CURRICULUM VITAE

ALEX RASHKOVAN

Date and place of birth: May 15, 1972, USSR
Nationality: Israeli
Personal Status: Married + 2
Address: 11 Prof. Heilperin Lifman st., Beer-Sheva, Israel, 84493
Tel: +972-50-62-31-089
E-mail: rashbgu@gmail.com

SUMMARY OF QUALIFICATIONS

My background is Ph.D. in mechanical engineering. I have 8 years of experience in computational and experimental heat/mass transfer and fluid mechanics. Experience includes leading and performing research in diverse topics.

RESEARCH EXPERIENCE & INTEREST

- Experimental and numerical investigation on heat transfer and fluid mechanics. Extended surfaces heat transfer optimization for High Temperature Gas Cooled Nuclear Reactors fuel rods.
- Boiling heat transfer.
- Thermal hydraulic analysis of nuclear reactor accidents.
- HT enhancement in rod-bundles with spacer grids.
- SCWR rod bundle flow and het transfer.
- Atomization and sprays. Investigation of effervescent atomizers controlling mechanisms for internal combustion engines applications.
- Passive cooling. Natural convection from fuel elements for High Temperature Gas Cooled Nuclear Reactors.
- Quenching heat transfer by water sprays.

EMPLOYMENT

2011-2012 visiting Professor, McMaster University, Hamilton, Canada

2009 – present, Researcher, Physics Department, NRCN

2005-2009 Researcher, Thermal Hydraulics, NRCN

1998-2005 Teaching assistant, Ben-Gurion University of the Negev, Sami Shamoon College of Engineering, Beer-Sheva, Israel

EDUCATION

2000-2005 Ph.D., Mechanical Engineering Department, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
"Experimental investigation of flash-boiling atomization"
Supervised: Prof. E.Sher

1998-2000 M.Sc., Mechanical Engineering Department, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
"Corona wind cooling"
Supervised: Prof. H. Kalman, Prof. E.Sher

2000-2005 B.Sc., Mechanical Engineering Department, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
"Shock wave attenuation in gas-liquid foams"
Supervised: Prof. T. Elperin, Prof. O. Igra

SCHOLARSHIPS

2005-2011 Katzir Scholarship for excellent scientists in governmental institutes by the Israeli government.

2003 Ehud Ben-Amitay award on excellent achievements in aeronautics.

WORKSHOPS

- Introduction to Computational Fluid Dynamics. Von-Karman Institute of Fluid Dynamics, Brussels, Belgium, 2005.
- Boiling Heat Transfer and Boiling Equipment. Darmstadt University, Darmstadt, Germany, 2006.
- Modeling and Computation of Multiphase Flows. Zurich, Switzerland, 2008.
- Thermal Hydraulics in Nuclear Reactor Safety, Saclay, France, 2012.

TEACHING EXPERIENCE

- Lecturer in Ben-Gurion University of the Negev, Beer-Sheva, Israel and Sami Shamoon College of Engineering, Beer-Sheva, Israel – Heat Transfer and Engineering Graphics courses for undergraduate students.
- Assistant at the Department of Mechanical Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel – Strength of Materials, Fluid Mechanics, Theory of Machines and Mechanisms and Engineering Graphics courses for graduate and undergraduate students.

LIST OF PUBLICATIONS

Barboy S., Rashkovan A. and Ziskind G., Determination of hot spots on a heated wavy wall in channel flow, *International Journal of Heat and Mass Transfer*, V. 55 (13-14), pp. 3576-3581, 2012.

Rashkovan A., Aharon J., Katz M. and Ziskind G., Optimization of rib-roughened annular gas-coolant channels, *Nuclear Engineering and Design*, V. 240, pp.344-351, 2010.

Sher E., Bar-Kohany T. and Rashkovan A., Flash-boiling atomization, *Progress in Energy and Combustion Science*, V.34, pp. 417-439, 2008.

Rashkovan A. and Sher E., Flow pattern observation of gasoline dissolved CO2 inside an injector, *Atomization and Sprays*, V. 16, pp. 615-626, 2006.

Rashkovan A., Rivin B. and Sher E., Effervescent atomization of gasoline containing dissolved CO2, *Atomization and Sprays*, V. 14, pp. 341-354, 2004.

Rashkovan A., Sher E. and Kalman H., Experimental optimization of an electric blower by corona wind, *Applied Thermal Engineering*, V. 22, pp. 1587-1599, 2002.

CONFERENCE PAPERS PRESENTED

Rashkovan A., Sher E. and Kalman H., Experimental optimization of an electrostatic blower, Paper NHTC-12141 at *National Heat Transfer Conference*, Anaheim, CA, USA, 2001.

Rashkovan A., Kholmer V. and Sher E., Effervescent atomization – an experimental study, *ILASS-Europe*, Zurich, 2001.

Rashkovan A., Sher E. and Rivin B., Gas-dissolved gasoline spray – an experimental tudy, Paper 2002-01-0841, book CP-1693, at *SAE Annual Conference*, Detroit, USA, 2002.

Rashkovan A., Kholmer V. and Sher E., Gas-dissolved high quality gasoline spray by using CO2-dissolved mixture, at *ILASS-Europe*, Saragossa, Spain, 2002.

Sher E., Rashkovan A., deBotton G. and Kholmer V., Optimization of gasoline dissolved CO2 injectors, Paper 2004-01-0543, book SP-1832, at *SAE Annual Conference*, Detroit, USA, 2004.

Rashkovan A., Rivin B. and Sher E., Flashing injection of CO2-dissolved mixture, at *ILASS-International*, Sorrento, Italy, 2004.

Sher E., Bar T. and Rashkovan A., Bi-component liquid flashing mechanism of spray formation, at *International Symposium on Heat and Mass Transfer in Spray Systems*, Anatalya, Turkey, 2005.

Rashkovan A., Katz M. and Aharon J., SNRC fuel element flow distribution, at *Israeli Conference on Nuclear Engineering*, Dead Sea, Israel, 2006.

Rashkovan A., Katz M., Aharon J. and Ziskind G., Effect of wall structured roughness on friction and heat transfer in pipe flow, at *ASME-JSME Thermal Engineering Summer Heat Transfer Conference*, Vancouver, British Columbia, Canada, 2007.

Rashkovan A., Katz M., Aharon J. and Ziskind G., Opimization of rib-roughened annular gas-coolant channels, at *The 12th International Topical Meeting on Nuclear Reactor Thermal Hydraulics (NURETH-12)*, Pittsburgh, PA, USA, 2007.

Barboy S., Rashkovan A. and Ziskind G., Channel flow along the heated wavy wall, at *ASME/JSME 8th Thermal Engineering Joint Conference, Honolulu, Hawaii, USA, 2011.*

Szemansky J., Chang D., Novog D., Podila K., Bailey J., Rao Y-F., Rashkovan A. and Tavoularis S., Canadian Participation in OECD-NEA-KAERI rod-bundle benchmark for CFD codes, *CNS Simulation Symposium*, Ottawa, ON, Canada, 2012.

Rashkovan A. And Novog D., MATiS-H benchmark – McMaster University contribution, *CFD4NRS-2012*, Korea, Donjeon, 2012.