Curriculum Vitae

Name: Andreas Enqvist, Ph.D.
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Education

Chalmers, Department of Nuclear Engineering, 2010-02-26
Degree of: Doctor of Philosophy (Ph.D.) Thesis title: *Safeguards: Modelling of the Detection and Characterization of Nuclear Materials*

Chalmers, Department of Nuclear Engineering, 2008-03-31
Licentiate-degree. Thesis title: *The Statistics of Emission and Detection of Neutrons and Photons from Fissile Samples for Safeguard Applications*

University of Gothenburg, Gothenburg, 2000–2005
M.Sc. in Physics. Thesis title: *Hubbard Models - states and transformations*.

Research

University of Florida, Department of Materials Science Engineering, Oct 2013 – ongoing:
Building a nuclear detection lab with accompanying research in neutron detection, fission physics and detector system development. Research areas include: neutronics in deuterated environments, Deuterium based recoil detectors, correlated fission neutron investigations. Ongoing federal research projects include: multidisciplinary data fusion projects with radiological and computer-based 3D-vision for detecting and tracking nuclear material among busy dynamic scenes; and detector development for fast neutron characterization of special nuclear material.

University of Michigan, Department of Nuclear Engineering & Radiological Sciences, April 2010 – Oct 2013:
Assistant Research Scientist (April 2013 – Oct 2013):
Research fellow (post-doc) (April 2010 – Mar 2013):
Leadership team member in the Detection for Nuclear Nonproliferation Group, an internationally recognized research group currently consisting of 30 researchers ranging in experience from undergraduate students to assistant research scientists (includes 14 doctoral students).
http://www-ners.engin.umich.edu/labs/dnng/
Co-author and co-investigator for multiple national and international research grants for a total funding amount of over 2 M$ since FY 2010.
Development of multiple measurement analysis codes/programs used for various purposes within detector characterization and nuclear safeguards measurements using digitally acquired data.
Organized and participated in multiple collaborative measurement campaigns at other universities and national laboratories as part of ongoing research projects.
Authored or co-authored multiple peer-reviewed journal papers, and scientific papers presented at conferences, both national and internationally.

Chalmers, Division of Nuclear engineering, 2005–2010:
PhD-candidate:
Developed novel theoretical models of detection and particle generation in fissile material samples.
Lectured in multiple courses including: Transport theory, Sub-atomic physics, Reactor physics, Neutron physics.

University of Michigan, Department of Nuclear Engineering & Radiological Sciences, mar 2009– jul 2009:
Visiting Scholar:
Experimental work with multiplicity measurements of various nuclear materials. And associated data analysis program development.

Oak Ridge National Laboratory, sept 2007–dec 2007:
visiting researcher:
Experimental work with cross-correlation measurements of neutrons and photons from a fissile sample.

Teaching

University of Florida, Department of Materials Science & Engineering
EGN1002 Introduction to Nuclear Engineering.
ENU4001 Nuclear Engineering Analysis 1 (Fall 2014).
ENU6106 Nuclear Reatcor Analysis, taught a neutron noise and reactor dynamics module. (fall 2014)
ENU5615C Nuclear Radiation Detection and Instrumentation, graduate course (spring 2015)

University of Michigan, Department of Nuclear Engineering & Radiological Sciences
Created and supervises a laboratory exercise for use in NERS 425 classes and associated class-lectures.

Chalmers University of Technology, Sweden
Lectured in multiple courses including: Transport theory, Sub-atomic physics, Reactor physics, Neutron physics. 2006–2010.

Kyoto University Critical Assembly - KUCA, japan & Chalmers University of Technology, Sweden
Created and gave lectures before student laborations in Japan and helped supervise those exercises.

International Center for Theoretical Physics (ICTP), Trieste, Italy
Lecturer at IAEA workshop on neutron noise/fluctuation methods for power systems, zero-power nuclear systems and safeguards at ICTP

Advisor to students

Main supervisor to the following graduate students (Name: degree working on)
Haitang Wang: Ph.D (2016 class)
Robert Weinmann-Smith (2018 class)
Yinong Liang(2018 class)
Kelsey Stadnikia (2019 class)

Main supervisor to the following *graduated* students (Name: degree)
Enrique Wong, BSc Honors Thesis
Gabriel Sandler, BSc

Undergraduates conducting supervised research for Dr. Enqvist:
Taylor Harvey
Allan Martin

Additional advisor/supervisor to the following students while at Univ. of Michigan (Name: degree working on)
Christopher Lawrence: Ph.D (graduated)
Charles Sosa: Ph.D
Brian Wieger: BS (graduated), MS (graduated)
Kyle Weinfurther: BS (graduated)
Philip Coyne: BS (graduated)
Arjun Mody: BS (UROP, graduated)

Program development activity

PI/Co-PI for research grants for a total UF funding amount of over 3.4 M$ since FY 2014 at University of Florida.

- *Consortium for Verification Technologies (CVT)*, NNSA-funded, led by University of Michigan. Total Consortium funding: 25 M$, UF-part: $1,043,602, Enqvist's portion: $ 524,500, 10/14–9/19, UF-PI James Baciak, PI: Sara Pozzi.
- *Radiological Source Detection and Tracking Based on Multi-Sensor Data Fusion*, DHS-DNDO-ARI-funded. Funding: $883,117 Enqvist's portion: $414,516, 10/14–9/17 PI: Andreas Enqvist.
- *Multimodal Nondestructive Dry Cask Basket Structure and Spent Fuel Evaluation*, DOE-NEUP-funded. Total Consortium funding: 3 M$, UF-part: $749,999, Enqvist's portion: $314,400, 10/15–9/18 PI: (University of Mississippi), UF-PI Jim Tulenko.
- *Used Fuel Storage Monitoring Using Novel 4He Scintillation Fast Neutron Detectors and Neutron Energy Discrimination Analysis*, DOE-NEUP-funded. Funding: $796,074 Enqvist's portion: $254,473, 10/15–9/18 PI: Kelly Jordan.

Co-author and named investigator for multiple national and international research grants for a total funding amount of over 2 M$ FY 2010–FY2013 at University of Michigan.

- *Basic Physics Data: Measurement of Neutron Multiplicity Distribution from Induced Fission*, Nuclear Engineering University Program, 10/11–9/14, $ 925,167, UM PI: Sara Pozzi, LANL PI: Robert Height.
- *Energy-Angle Correlations in Spontaneous- and Induced-Fission Neutron Emissions*, Department of Energy, National Nuclear Security Administration,7/11–7/14, $899,776, UM PI: Sara Pozzi, LANL PI: Robert Height.
- *Epithermal- and Fast-Neutron Detection System for Active- and Passive-Measurement Applications for National Security and Nuclear Energy*, Department of Energy, Office of Science Office of High Energy Physics, Applications of Nuclear Science and Technology Initiative, 10/11–9/12, $188,000, PI: Sara Pozzi.

Awards, Honors, Grants

The Sigvard Eklund Prize
Awarded with the Sigvard Eklund Prize for best PhD thesis at Swedish universities in subjects related to nuclear technology. (2010).

INMM-47
Awarded for the best student paper at the INMM annual meeting in Nashville Tennessee in July 2006.

Forskraftstiftelsen
Research grant for 3-month research visit at Oak Ridge National Laboratory (2007).

Chalmers Vänner
Travel Scholarship for financing a research presentation and travel to MC&SNA2007.

Memberships

INMM
Member of Institute of Nuclear Materials Management since 2006.

ANS
Member of American Nuclear Society since 2013.

YGN
Part of the Young Generation Network for young persons active within the field of nuclear technology/science (2008-2009).

Contributed presentations/posters at national and international conferences

2015
IEEE Symposium on Technologies for Homeland Security (HST '15)
Advancements in Nuclear Instrumentation Measurement Meth. & Application (ANIMMA) 2015
Institute of Nuclear Materials Management 56th Annual Meeting
3DV 2015 International Conference on 3D Vision
2014
Symposium on Radiation Measurements and Applications (SORMA)
Institute of Nuclear Materials Management 55th Annual Meeting
2013
Institute of Nuclear Materials Management 54th Annual Meeting
2012
IEEE Nuclear Science Symposium and Medical Imaging Conference
Institute of Nuclear Materials Management 53rd Annual Meeting
Symposium on Radiation Measurements and Applications (SORMA)
2011
IEEE Nuclear Science Symposium and Medical Imaging Conference
Institute of Nuclear Materials Management 52nd Annual Meeting
2010
IEEE Nuclear Science Symposium and Medical Imaging Conference
Institute of Nuclear Materials Management 51st Annual Meeting
Symposium on Radiation Measurements and Applications (SORMA)
2009
IEEE Nuclear Science Symposium and Medical Imaging Conference
Institute of Nuclear Materials Management 50th Annual Meeting
European Safeguards Research and Development Association (ESARDA) Symposia
International Conference on Mathematics, Computational Methods & Reactor Physics (M&C 2009)
2008
Institute of Nuclear Materials Management 49th Annual Meeting
Symposium on Radiation Measurements and Applications (SORMA)
2007
American Nuclear Society Annual Winter Meeting
Institute of Nuclear Materials Management 48th Annual Meeting
American Nuclear Society Annual Meeting
International Youth Conference on Energetics (IYCE09)
Fourth SPIE International Symposium on Fluctuations and Noise
European Safeguards Research and Development Association (ESARDA) Symposia
Joint International Topical Meeting on Mathematics & Computation and Supercomputing in Nuclear Applications (M&C+SNA'07)
2006
IAEA symposium on International Safeguards
American Nuclear Society's Topical Meeting on Reactor Physics (PHYSOR06)
Institute of Nuclear Materials Management 47th Annual Meeting

PUBLICATIONS

Citation summary (Google scholar):
301 total citations, h-index: 9, i10-index: 8

Journal articles

1. "The Number Distribution of Neutrons and Gamma Photons Generated in a Multiplying Sample."
A. Enqvist, I. Pázsit, S.A. Pozzi. Nucl. Instr. & Meth. A **566/2**, (2006) p. 598.

2. "The Number Distribution and Factorial Moments of Neutrons and Gamma Photons Generated in a Multiplying Sample."
A. Enqvist, I. Pázsit, S.A. Pozzi. Journal of Nuclear Materials Management **35**, No. 1, (2006) p. 29 (invited paper).

3. "Monte Carlo and Analytical Models of Neutron Detection with Organic Scintillation Detectors."
S.A. Pozzi, M. Flaska, A. Enqvist and I. Pázsit. Nucl. Instr. & Meth. A **582** (2007) p. 629.

4. "Measurement and Simulation of Neutron/Gamma-ray Cross-correlation Functions from Spontaneous Fission."
A. Enqvist, M. Flaska, S.A. Pozzi. Nucl. Instr. & Meth. A **595** (2008) p. 426.

5. "A Note on the Multiplicity Expressions in Nuclear Safeguards."
I. Pázsit, A. Enqvist and L. Pál, Nucl. Instr. Meth. A **603** (2009) p. 541

6. "The Detection Statistics of Neutrons and Photons Emitted from a Fissile Sample."
A. Enqvist, I. Pázsit, S.A. Pozzi. Nucl. Instr. Meth. A **607** (2009) p. 451

7. "Unfolding Sample Parameters from Neutron and Gamma Multiplicities Using Artificial Neural Networks."
S. Avdic, A. Enqvist, I. Pázsit. ESARDA Bulletin **43** (2009) p. 21

8. "Sample Characterization Using Both Neutron and Gamma Multiplicities."
A. Enqvist, I. Pázsit, S. Avdic. Nucl. Instr. Meth. A **615** (2010) p. 62

9. "Calculation of the Light Pulse Distributions Induced by Fast Neutrons in Organic Scintillation Detectors."
A. Enqvist, I. Pázsit. Nucl. Instr. Meth. A **618** (2010) p. 266

10. "Initial Evaluation for a Combined Neutron and Gamma-ray Multiplicity Counter."
A. Enqvist, M. Flaska, S.A. Pozzi, I. Pázsit, Nucl. Instr. Meth. A **621** (2010) p. 493

11. "Characterization of a Mixed Multiplicity Counter Based on Liquid Organic Scintillators."
A. Enqvist, K. J. Weinfurther, M. Flaska, S.A. Pozzi, , Trans. on Nucl. Sci. **58**, No. 5, October (2011) p. 2413

12. "MCNPX-PoliMi for Nuclear Nonproliferation Applications."
S.A. Pozzi, S.D. Clarke, W. Walsh, E.C. Miller, J. Dolan, M. Flaska, B.M. Wieger, A. Enqvist, E. Padovani, J.K. Mattingly, D. Chichester, P. Peerani, Nucl. Instr. Meth. A **694** (2012) p. 119

13. "Characterization of Special Nuclear Material Using a Time-Correlated Pulse-Height Analysis."
E. C. Miller, S. D. Clarke, A. Enqvist, S. A. Pozzi, P. Marleau, and J. K. Mattingly, Journal of Nuclear Materials Management **41**, No. 1, (2012) p. 32

14. "Neutron-Induced ^{235}U Fission Spectrum Measurements Using Liquid Organic Scintillation Detectors."
A. Enqvist, B. M. Wieger, L. Huang, M. Flaska, S.A. Pozzi, R. C. Haight, H. Y. Lee, E. Kwan and C. Y. Wu, Phys. Rev. C **86**, 064605 (2012)

15. "Neutron Light Output Response and Resolution Functions in EJ-309 Liquid Scintillation Detectors"
A. Enqvist, C. C. Lawrence, B. M. Wieger, S. A. Pozzi, T. N. Massey, Nucl. Instr. Meth. A **715** (2013) p. 79

16. "Response characterization for an EJ315 deuterated organic-liquid scintillation detector for neutron spectroscopy"
C. C. Lawrence, A. Enqvist, M. Flaska, S. A. Pozzi, A. M. Howard, J. J. Kolata, F. D. Becchetti, Nucl. Instr. Meth. A **727**, (2013), pp. 21-28

17. "EJ-309 pulse shape discrimination performance with a high gamma-ray-to-neutron ratio and low threshold"
A. C. Kaplan, M. Flaska, A. Enqvist, J. L. Dolan, S. A. Pozzi, Nucl. Instr. Meth. A, **729**, (2013), pp. 463-468

18. "Comparison of Spectrum-unfolding Performance of (EJ315) and (EJ309) Liquid Scintillators on Measured 252Cf Pulse-Height Spectra"
C. C. Lawrence, A. Enqvist, M. Flaska, S. A. Pozzi, A. M. Howard, J. J. Kolata, F. D. Becchetti, Nucl. Instr. Meth. A, **729**, (2013), pp 924-929

19. "Correlated Neutron Emissions from ^{252}Cf"
Sara A. Pozzi, Brian Wieger, Andreas Enqvist, Shaun D. Clarke, Marek Flaska, Matthew Marcath, Edward Larsen, Robert C. Haight, Enrico Padovani, Nucl. Science and Engng. **178-2**, (2014), pp 250-260

20. "Plutonium Measurements with a fast-neutron multiplicity counter for nuclear Safeguards Applications"
Jennifer L. Dolan, Marek Flaska, Alexis Poitrasson-Riviere, Andreas Enqvist, Paolo Peerani, David L. Chichester, Sara A. Pozzi, Nucl. Instr. Meth. A, **763**, (2014), pp 565-574

21. "An Algorithm for Charge-Integration, Pulse-Shape Discrimination and Estimation of Neutron/Photon Misclassification in Organic Scintillators"
John K. Polack, Marek Flaska, Andreas Enqvist, Charles S. Sosa, Christopher C Lawrence; Sara A Pozzi, Nucl. Instr. Meth. A **795**, (2015) pp 253-267

22. "Neutron response function characterization of 4 He scintillation detectors"
Ryan P Kelley, Lucas M Rolison, Jason M Lewis, David Murer, Thomas N Massey, Andreas Enqvist, Kelly A Jordan Nucl. Instr. Meth. A, **793** (2015) pp 101-107

23. "Pulse height model for deuterated scintillation detectors"
Haitang Wang, Andreas Enqvist, Nucl. Instr. Meth. A, **804**, (2015), pp 167-174

Peer-reviewed conference contributions

1. "The Number Distribution and Factorial Moments of Neutrons and Gamma Photons Generated in a Multiplying Sample."
A Enqvist, I Pázsit and S A Pozzi INMM 47th Annual Meeting, July 16-20, 2006, Nashville Convention Centre, Nashville, TN, USA

2. "The number distribution of neutrons and gammas generated in a multiplying sample."
A Enqvist, S A Pozzi, I. Pázsit Proceedings of the American Nuclear Society's Topical Meeting on Reactor Physics (PHYSOR-2006) Sept. 10-14, Vancouver, Canada.

3. "Statistics of the neutrons and gamma photons emitted from a fissile sample with absorption."
A Enqvist, I Pázsit and S A Pozzi, Proceedings of IAEA symposium on International Safeguards: Addressing Verification Challenges, 16 - 20 October 2006, Vienna, Austria.

4. "Calculation of the pulse height distribution induced by fast neutrons in a scintillating detector."
A Enqvist, I Pázsit and S A Pozzi, Joint International Topical Meeting on Mathematics & Computation and Supercomputing in Nuclear Applications (M&C + SNA 2007) Monterey, California, April 15-19, 2007.

5. "Analytical and numerical modelling of the detection statistics of emission from a fissile sample with absorption."
A Enqvist, I Pázsit and S A Pozzi, Joint International Topical Meeting on Mathematics & Computation and Supercomputing in Nuclear Applications (M&C + SNA 2007) Monterey, California, April 15-19, 2007.

6. "Analytical and numerical modelling of the detection statistics from a fissile sample."
A. Enqvist, S. A. Pozzi and I. Pázsit, ESARDA Meeting, Aix-En-Provance, 2007.

7. "The joint distribution of detected neutrons and gamma photons from fissile samples and its application in nuclear safeguards."
I. Pázsit, L. Pál, A. Enqvist and S. A. Pozzi, Fourth SPIE International Symposium Fluctuations and Noise, 20-24 May 2007, Florence, Italy. Proc. SPIE Vol. 6603, pp. 251-259 (2007)

8. "Analytical and Numerical Modeling of the Detection Statistics from a Fissile Sample."
A Enqvist, I Pázsit and S A Pozzi, International Youth Conference on Energetics, May-June 2007.

9. "Neutron and Photon Multiplicities for Nuclear Material Detection and Identification."
S A Pozzi, A Enqvist and I Pázsit, ANS Annual Meeting, Boston, June 2007.

10. "The Detection Statistics of Neutrons and Photons Emitted from a Fissile Sample."
A. Enqvist, I. Pázsit and S. A. Pozzi INMM Annual Meeting, Tucson, Arizona, 7-12 July 2007

11. "Derivation and Comparison of the Pulse Height Distribution Induced by Fast Neutrons in a Scintillation Detector."
A. Enqvist, I. Pázsit and S. A. Pozzi Fall meeting of the INMM Central Chapter, Oak Ridge, 7 November 2007

12. "Theory of periodically pulsed Feynman- and Rossi-alpha methods."
I. Pázsit and A. Enqvist, ANS Winter Meeting, Washington, November 2007.

13. "Measurement of Fast Neutron/Gamma-Ray Cross-Correlation Functions with a Pu-Be Source."
A Enqvist, M Flaska and S A Pozzi, Symposium on radiation measurements and applications (SORMA), Berkeley, California, USA, 2-5 June 2008.

14. "Measurement of Neutron/Gamma-Ray Cross-Correlation Functions for the Identification of Nuclear Materials."
A Enqvist, M Flaska and S A Pozzi, INMM Annual Meeting, Nashville, Tennessee, 13-17 July 2008.

15. "Analytical calculation and simulation of the light pulse distribution in organic scintillation detectors."
I Pázsit, A Enqvist and S A Pozzi, INMM Annual Meeting, Nashville, Tennessee, 13-17 July 2008.

16. "Combined Use of Neutron and Gamma Multiplicities for Determining Sample Parameters."
A Enqvist, I Pázsit and S Avdic, International Conference on Mathematics, Computational Methods & Reactor Physics (M&C 2009), Saratoga Springs, New York, May 3-7 2009.

17. "Unfolding sample parameters from neutron and gamma multiplicities."
A Enqvist, I Pázsit and S Avdic, ESARDA Symposia, Vilnius, Latvia, 26-27 May 2009.

18. "Sample characterization using both neutron and gamma multiplicities."
A Enqvist, I Pázsit, S Avdic and S A Pozzi, INMM Annual Meeting, Tucson, Arizona, 12-16 July 2009.

19. "Measurement of fast neutron/gamma-ray cross-correlation functions with Cf-252 and Pu-Be neutron sources."
M. Flaska, A. Enqvist, S. A. Pozzi, IEEE Nuclear Science Symposium, Orlando, Florida, 25-31 Oct 2009.

20. "A Combined Neutron and Gamma Ray Multiplicity Counter Based on Liquid Scintillation Detectors."
A Enqvist, M Flaska, J Dolan, D Chichester and S A Pozzi, Symposium on radiation measurements and applications (SORMA) proceedings: Nuclear Instruments and Methods in Physics Research A **652** (2011) 48-51, Ann Arbor, Michigan, 24-28 May 2010.

21. "Evaluation of a Combined Neutron and Gamma-Ray Multiplicity Counting System."
A Enqvist, M Flaska, S A Pozzi, J Dolan and D Chichester, INMM Annual Meeting, Baltimore, Maryland, 11-15 July 2010.

22. "Investigation of the Neutron Response Function of a Liquid Scintillation Detector."
M. M. Bourne, S. D. Clarke, E. C. Miller, M. Flaska, A. Enqvist, and S. A. Pozzi, INMM Annual Meeting, Baltimore, Maryland, 11-15 July 2010.

23. "Optimization of a Mixed Multiplicity Counter Using Monte Carlo Simulations and Measurements."
A Enqvist, K J Weinfurther, M Flaska and S A Pozzi, IEEE Nuclear Science Symposium, Knoxville, Tennessee, 1-5 Nov 2010.

24. "The estimation of neutron energy spectra of nuclear materials by passive measurements for nuclear nonproliferation applications."
J.L. Dolan, E.C. Miller, S.A. Pozzi, A. Enqvist, M. Flaska, P. Peerani, IEEE Nuclear Science Symposium, Knoxville, Tennessee, 1-5 Nov 2010.

25. "Time-of-flight measurement for energy-dependent intrinsic neutron detection efficiency"
C.C. Lawrence; M. Flaska; M. Ojaruega; A. Enqvist; S.D. Clarke; S.A. Pozzi; F.D. Becchetti, IEEE Nuclear Science Symposium, Knoxville, Tennessee, 1-5 Nov 2010.

26. "Measurement of Fission Spectrum at LANSCE for the Evaluation of Safeguards Data."
A. Enqvist, B. M. Weiger, K. J. Weinfurther, L. Huang, M. Flaska, S. A. Pozzi and R. C. Haight, INMM Annual Meeting, Palm Desert, California, 17-21 July 2011.

27. "Energy Correlation of Neutrons from Fission Sources"
K. J. Weinfurther, A. Enqvist, M. Flaska, and S. A. Pozzi, INMM Annual Meeting, Palm Desert, California, 17-21 July 2011.

28. "Evaluation of New and Existing Organic Scintillators for Fast Neutron Detection"
S. A. Pozzi, J. L. Dolan, E. C. Miller, M. Flaska, S. D. Clarke, A. Enqvist, P. Peerani, M. A. Smith-Nelson, E. Padovani, J. B. Czirr, and L. B. Rees, INMM Annual Meeting, Palm Desert, California, 17-21 July 2011.

29. "Measurement of Detector Resolution for Photon Detection with Organic Liquid Scintillation Detectors."
M. M. Bourne, S. D. Clarke, M. Flaska, A. Enqvist, and S. A. Pozzi, INMM Annual Meeting, Palm Desert, California, 17-21 July 2011.

30. "Neutron Energy Spectrum Unfolding with Deuterium- and Hydrogen-based Liquid Scintillators."

C.C. Lawrence, A. Enqvist, M. Ojaruega, S.D. Clarke, M. Flaska, S.A. Pozzi, F.D. Becchetti, INMM Annual Meeting, Palm Desert, California, 17-21 July 2011.

31. "Neutron Measurement and Spectroscopy with Capture-Gated Organic Scintillation Detectors for Nuclear Safeguards Applications."
J. L. Dolan, E. C. Miller, A. Enqvist, M. Flaska, S. D. Clarke, S. A. Pozzi, and P. Peerani, INMM Annual Meeting, Palm Desert, California, 17-21 July 2011.

32. "Response Function Study for Energy to Light Conversion in Organic Liquid Scintillators."
S. Prasad, A. Enqvist, S. D. Clarke, S. A. Pozzi, E. W. Larsen, INMM Annual Meeting, Palm Desert, California, 17-21 July 2011.

33. "Fission Spectrum Measurements at LANSCE Using Liquid Organic Scintillators."
A. Enqvist, M. Flaska, S. A. Pozzi, R. C. Haight, H. Y. Lee and C. Y. Wu, IEEE Nuclear Science Symposium, Valencia, Spain, 23-29 Oct 2011.

34. "Neutron Energy Spectrum Unfolding with Deuterium- and Hydrogen-based Liquid Scintillators."
C. C. Lawrence, A. Enqvist, M. Ojaruega, M. Flaska, S. D. Clarke, S. A. Pozzi, F. D. Becchetti, IEEE Nuclear Science Symposium, Valencia, Spain, 23-29 Oct 2011.

35. "Resolution Functions of Liquid Scintillation Detectors Based on EJ309."
A. Enqvist, C. C. Lawrence, T. N. Massey, S. A. Pozzi, IEEE Symposium on Radiation Measurements and Applications (SORMA), Oakland, California, 14-17 May 2012.

36. "MCNPX-PoliMi for the Simulation of the Neutron and Gamma Ray Emissions from Nuclear Fission."
S. A. Pozzi, S. D. Clarke, W. J. Walsh, E. C. Miller, J. L. Dolan, B. M. Wieger, M. Flaska, A. Enqvist, S. F. Naeem, J. K. Mattingly, E. Padovani, INMM Annual Meeting, Orlando, Florida, 15-19 July 2012.

37. "Multiplicity Distributions and Energy-Angle Correlations in Spontaneous Fission Neutron Emissions."
B. M. Wieger, A. Enqvist, S. A. Pozzi, INMM Annual Meeting, Orlando, Florida, 15-19 July 2012.

38. "Neutron Light Output Functions Measured for EJ309 Liquid Scintillation Detectors."
A. Enqvist, C. C. Lawrence, T. N. Massey, S. A. Pozzi, INMM Annual Meeting, Orlando, Florida, 15-19 July 2012.

39. "Response Characterization for the Hydrogen-based Liquid Scintillation Detector EJ309."
C. C. Lawrence, A. Enqvist, T. N. Massey, M. Flaska, S. Clarke, S. A. Pozzi, F. D. Becchetti, INMM Annual Meeting, Orlando, Florida, 15-19 July 2012.

40. "Digital Data Acquisition and Processing for a Neutron–Gamma-Ray Imaging System"
A. Poitrasson-Rivière, M. Flaska, M.C. Hamel, J.K. Polack, M.F. Becchetti, B.M. Wieger, A. Enqvist, S.D. Clarke, S.A. Pozzi, IEEE Nuclear Science Symposium, Anaheim, California, 29 Oct-3 Nov 2012.

41. "Characterizing Plutonium-Containing Materials with a Fast-Neutron Multiplicity Counter"
J. L. Dolan, M. J. Marcath, A. Poitrasson-Riviere, A. Enqvist, M. Flaska, S. A. Pozzi, D. L. Chichester, INMM Annual Meeting, Palm Desert, California, 14-19 July 2013.

42. "Energy-angle Correlation of Neutrons Emitted from ^{235}U Induced Fission"
A. Enqvist, B. M. Wieger, S. D. Clarke, S. A. Pozzi, R. C. Haight, H. Y. Lee, B. A. Perdue, E. Kwan, C.-Y. Wu, INMM Annual Meeting, Palm Desert, California, 14-19 July 2013.

43. "Gamma-ray and Neutron Misclassification Rates versus Pulse-height in Organic Scintillation Detectors EJ309, EJ315, and EJ299"
C. C. Lawrence, A. Enqvist, M. Flaska, S. A. Pozzi, F D. Becchetti, INMM Annual Meeting, Palm Desert, California, 14-19 July 2013.

44. "Neutron Multiplicity Distribution Measurements of ^{235}U Induced Fission"
B. M. Wieger, A. Enqvist, S. D. Clarke, S. A. Pozzi, R. C. Haight, H. Y. Lee, B. A. Perdue, E. Kwan, C.-Y. Wu, INMM Annual Meeting, Palm Desert, California, 14-19 July 2013.

45. "New Models for Prompt Neutron Emissions from Nuclear Fission"
S. A. Pozzi, A. Enqvist, B. Wieger, S. D. Clarke, M. Flaska, M. Marcath, E. Larsen, R. C. Haight, N. Puppato, E. Padovani, INMM Annual Meeting, Palm Desert, California, 14-19 July 2013.

46. "A Computer-Aided, Visual, Charge-Integration, Pulse-Shape-Discrimination Method for Organic Scintillators"
J. K. Polack, M. Flaska, A. Enqvist, S A. Pozzi, INMM Annual Meeting, Palm Desert, California, 14-19 July 2013.

47. "Time-of-flight neutron response function characterization of 4He scintillation detectors"
Ryan Kelley, Jason Lewis,Andreas Enqvist, Kelly Jordan, 2014 Symposium on Radiation Measurements and Applications (SORMA), Ann Arbor, Michigan, 9-12 June, 2014

48. "Design of Handheld Stilbene System for Neutron Detection in a High-Gamma Field"

S.D. Clarke, S. A. Pozzi,M. M. Bourne, A. Enqvist, N. Zaitseva, S. Payne, INMM Annual Meeting, Atlanta, Georgia, 20-24 July 2014

49. "Experiments and Simulations of Correlated, Prompt Emissions in Cf-252"
S. A. Pozzi, B. Wieger, S. Ward, S. D. Clarke, M. Flaska, M. J. Marcath, E. W. Larsen, A Enqvist, R. Vogt, J. Randrup, P. Talou, T. Kawano, I. Stetcu, E. Padovani, INMM Annual Meeting, Atlanta, Georgia, 20-24 July 2014

50. "Pulse height models for deuterated scintillation detectors"
Haitang Wang, Thomas N. Massey, Andreas Enqvist, INMM Annual Meeting, Atlanta, Georgia, 20-24 July 2014

51. "Gamma-Ray and Fast Neutron Imager with Thermal Neutron Detection Capability for Detecting Shielded and Bare Nuclear Materials"
A. Enqvist, Adam Veige, J. K. Walker, R. Farley, Y. Noh, 2015 IEEE Symposium on Technologies for Homeland Security (HST '15), Boston, Massachusetts, 14-16 April 2015

52. "Data Fusion for a Vision-Radiological System: a Statistical Calibration Algorithm"
A. Enqvist, S. Koppal, P. Riley, Advancements in Nuclear Instrumentation Measurement Methods and their Applications (ANIMMA), Lisbon, Portugal, 20-24 April 2015

53. "Analysis on Fast Neutron Pulses Generated by a Deuterated Organic Scintillator (EJ-315)"
H. Wang, A. Enqvist, INMM Annual Meeting, Indian Wells, California, 12-16 July 2015

54. "Low-Cost Depth and Radiological Sensor Fusion to Detect Moving Sources"
Phillip Riley, A. Enqvist, Sanjeev J. Koppal, 3DV2015 Int. Conf. on 3D Vision, Lyon, France, 19-22 October 2015

Lecture notes

"Neutron Noise in Zero Power Systems."
I. Pázsit and A. Enqvist Lecture series at the IAEA Workshop on Neutron Fluctuations, Reactor Noise, and Their Applications in Nuclear Reactors. Lecture notes 171 pages. Hosted by the International Centre for Theoretical Physics (ICTP), Trieste, Italy, 22 to 26 September 2008, I2-TR-35632.