



Curriculum Vitae

Azamat Khassenov

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AFFILIATION

Graduate Program
Ulsan National Institute of Science & Technology (UNIST)
UNIST-gil 50, Ulsan Metropolitan City, Republic of Korea, 689-798

EDUCATION

Graduate, Ulsan Nation Institute of Science and Technology, Korea (2016.08~current)
• Nuclear Science and Engineering
Undergraduate, Ulsan Nation Institute of Science and Technology, Korea (2012.08~2016.08)
• 1st track: Nuclear Science and Engineering
• 2nd track: Physics

WORK EXPERIENCE

- Helmholtz-Zentrum Dresden-Rossendorf (HZDR) (2017.07 ~ 2017.09)
 - PWR type reactor analysis using Serpent – DYN3D code system
- University of Illinois at Urbana-Champaign (2015.01 ~ 2015.02)
 - Two-Step modeling of the BEAVRS using SCALE6.1/NEWT and PARCS
- University of Illinois at Urbana-Champaign (2015.07 ~ 2015.08)
 - Inverse Uncertainty quantification of TRACE for FEBA experiments
- UNIST Computational Reactor Physics and Experiment Laboratory (2014.01 ~)
 - Monte Carlo Code MCS Development
 - ✓ On-the-fly Doppler broadening
 - ✓ Resolved resonance region cross section generation

RESEARCH INTERESTS

- Multipole representation of the microscopic cross section
- Generalized perturbation theory

CERTIFICATES

- Awards & Scholarships
 - Nuclear Technology Undergraduate Student Society Scholarship, National Research Foundation of Korea (June, 2015 – current)
 - UNIST Global Scholarship (July 2015 – August 2015)
- Training (Domestic)
 - McCARD developer training course, Seoul National University (SNU, March, 2015)

**PUBLICATIONS
SCI Journal**

1. Sooyoung Choi, **Azamat Khassenov**, and Deokjung Lee*, “Resonance Self-Shielding Method Using Resonance Interference Factor Library for Practical Lattice Physics Computations of LWRs,” J. Nucl. Sci. Technol., <http://dx.doi.org/10.1080/00223131.2015.1095686> (2015)

**International Topical
Meeting**

1. Sooyoung Choi, **Azamat Khassenov**, and Deokjung Lee*, “Resonance Interference Method in Lattice Physics Code STREAM,” Proceedings of ICONE-23, Chiba, Japan, May 17-21 (2015).

**International and
Domestic
Conferences**

1. **Azamat Khassenov**, Sooyoung Choi, and Deokjung Lee, “Application of Energy Window Concept in Doppler Broadening of ²³⁸U Cross Section,” Transactions of the Korean Nuclear Society Autumn Meeting, Pyeongchang, Korea, October 30-31, 2014
2. Sooyoung Choi, **Azamat Khassenov**, and Deokjung Lee*, “Improvement of Resonance Interference Treatment in STREAM,” KNS Fall Meeting, Pyeongchang, Korea, October 30-31 (2014)
3. Sooyoung Choi, **Azamat Khassenov**, and Deokjung Lee*, “Resonance Self-Shielding Method with Resonance Interference Factor Library,” ANS Winter Meeting, Anaheim, CA, November (2014)
4. Sooyoung Choi, Chidong Kong, **Azamat Khassenov**, and Deokjung Lee*, “Methodology and Verification of Neutron Transport Code STREAM for Analysis of Innovative Reactor Core Design,” International Symposium on NPP Technology and HRD, Busan, Korea, November (2014)
5. Sooyoung Choi, **Azamat Khassenov**, and Deokjung Lee*, “Resonance Interference Method in Lattice Physics Code STREAM,” Proceedings of ICONE-23, Chiba, Japan, May 17-21 (2015)
6. **Azamat Khassenov**, Sooyoung Choi, and Deokjung Lee, “On the Fly Doppler Broadening Using Multipole Representation,” KNS Spring Meeting, Jeju, Korea, May 6-8 (2015)
7. **Azamat Khassenov**, Sooyoung Choi, Hyunsuk Lee, Peng Zhang, Youqi Zheng, Deokjung Lee, “Preliminary Performance Evaluation of On-the-Fly Doppler Broadening Capability for Monte Carlo Simulation in MCS,” “7ICMSNSE 2015, Ottawa, Canada, (2015)
8. **Azamat Khassenov**, Sooyoung Choi, Hyunsuk Lee, Zhang Peng, Zheng Youqi, Deokjung Lee, “Development of the on the fly Doppler broadening module for Monte Carlo code simulation,” KNS Spring Meeting, Jeju, Korea, May 11-13 (2016)
9. Hyunsuk Lee, Deokjung Lee, Peng Zhang, and **Azamat Khassenov**, “Preliminary Solution of BEAVRS Hot Full Power at BOC by Monte Carlo Code” KNS Fall Meeting, Gyeongju, Korea, October 26-28 (2016)
10. Hyunsuk Lee, Wonkyeong Kim, Peng Zhang, **Azamat Khassenov**, Yunki Jo, and Deokjung Lee, “Development Status of Monte Carlo Code at UNIST”, KNS 2016 spring, Jeju, Korea, May 11-13 (2016)
11. Hyunsuk Lee, **Azamat Khassenov**, Peng Zhang, and Deokjung Lee*, “Computational Approaches to Large-scale/complex Nuclear Reactor Analysis,” CPMMS2016, Bangkok, Thailand, January 24-26 (2016)
12. Jiankai Yu, **Azamat Khassenov**, Peng Zhang, Deokjung Lee*, “On the Convergence Issue for Multi-Poles Conversion from Reich-Moore Formalism,”

M&C2017, Jeju, Korea, April 16-20 (2017)

13. Hyunsuk Lee, Wonkyeong Kim, Peng Zhang, **Azamat Khassenov**, Jinsu Park, Jiankai Yu, Sooyoung Choi, Hwan Soo Lee and Deokjung Lee*, “Preliminary Simulation Results of BEAVRS Three-dimensional Cycle 1 Wholecore Depletion by UNIST Monte Carlo Code MCS,” M&C2017, Jeju, Korea, April 16-20 (2017)
14. Sanggeol Jeong, Jaerim Jang, Wonkyeong Kim, **Azamat Khassenov**, Deokjung Lee*, “Evaluation of NUREG/CR-6361 and NUREG/CR-6698 Methodologies of PWR Spent Fuel Pool and Storage Cask”, KNS Spring Meeting, Jeju, Korea, May 17-19 (2017)
15. Jiankai Yu, Hyunsuk Lee, **Khassenov Azamat**, Kan Wang and Deokjung Lee*, “PERFORMANCE OF ON-THE-FLY CROSS SECTIONS PROCESSING IN MONTE CARLO SIMULATION CODE,” 37th Annual Conference of the Canadian Nuclear Society, Niagara Falls, ON, Canada, June 4-7 (2017)
16. **Azamat Khassenov**, Jiankai Yu, Hyunsuk Lee, Peng Zhang and Deokjung Lee*, “On the Window Multi-pole Library Generation,” RPHA17, Chengdu, China, August 24-25 (2017)