

NSF BIOGRAPHICAL SKETCH

NAME: Borrelli, R. A.

POSITION TITLE & INSTITUTION: Associate Professor, University of Idaho - Idaho Falls Center for Higher Education

(a) PROFESSIONAL PREPARATION -(see PAPPG Chapter II.C.2.f.(a))

INSTITUTION	LOCATION	MAJOR / AREA OF STUDY	DEGREE (if applicable)	YEAR YYYY
Worcester Polytechnic Institute	Worcester, MA	Mechanical/Nuclear Engineering	BS	1996
Worcester Polytechnic Institute	Worcester, MA	Civil/Environmental Engineering	MS	1999
University of California-Berkeley	Berkeley, CA	Nuclear Engineering	PHD	2006

(b) APPOINTMENTS -(see PAPPG Chapter II.C.2.f.(b))

2021 - present	Associate Professor, University of Idaho - Idaho Falls Center for Higher Education, Department of Nuclear Engineering and Industrial Management, Idaho Falls, ID
2015 - 2021	Assistant Professor, University of Idaho - Idaho Falls Center for Higher Education, Department of Nuclear Engineering and Industrial Management, Idaho Falls, ID
2012 - 2015	Adjunct Professor, Diablo Valley Community College, Department of Architecture and Engineering , Pleasant Hill, CA
2009 - 2012	Postdoctorate Researcher, University of California-Berkeley, Department of Nuclear Engineering, Berkeley, CA
2007 - 2009	Research Associate, The University of Tokyo, Department of Nuclear Engineering/Management, Tokyo

(c) PRODUCTS -(see PAPPG Chapter II.C.2.f.(c))

Products Most Closely Related to the Proposed Project

1. Mena P, Borrelli RA., Kerby L. Nuclear reactor transient diagnostics using classification and AutoML. Nuclear Technology. 2021. DOI: 10.1080/00295450.2021.1905470
2. Borrelli RA, Delligatti M, Heidrich B. Borated aluminum cask design for onsite intermediate storage - Preliminary neutronics design and certification analysis. Nuclear Engineering and Design. 2020; 363. DOI: 10.1016/j.nucengdes.2020.110666
3. Lee J, Borrelli RA. Sensitivity analysis and application of advanced nuclear accounting methodologies on the high reliability safeguards model: Use of discrete event simulation for material throughput in fuel fabrication. Nuclear Engineering and Design. 2019; 345:183.
4. Carter J, Borrelli RA. Neutron physics study of an integral molten salt reactor using Monte Carlo N-Particle code. Nuclear Engineering and Design. 2020; 365. DOI: 10.1016/j.nucengdes.2020.110718
5. Peterson J, Haney M, Borrelli RA. An overview of methodologies for cyber security vulnerability assessments conducted in nuclear power plants. Nuclear Engineering and Design. 2019; 346:75.

Other Significant Products, Whether or Not Related to the Proposed Project

1. Lee J, Shigrekar A, Borrelli RA. Hazard and operability analysis of a pyroprocessing facility. Nuclear Engineering and Design. 2019; 348:131.
2. Redfoot E, Borrelli RA. Analysis of nuclear renewable hybrid energy systems modeling and nuclear fuel cycle simulators. Nuclear Technology. 2018; 204:249.
3. Borrelli RA. A high reliability safeguards approach for safeguardability of remotely-handled nuclear facilities: 2. A risk-informed approach for safeguards. Journal of Nuclear Materials Management. 2014; XLII:27.
4. Tacke J, Borrelli R, Roberson D. Advanced frequency-domain compensator design for subsystems within a nuclear generating station. Progress in Nuclear Energy. 2021; 140. DOI: 10.1016/j.pnucene.2021.103914
5. Redfoot EK., Verner KM., Borrelli RA.. Applying analytic hierarchy process to industrial process design in a Nuclear Renewable Hybrid Energy System. Progress in Nuclear Energy. 2022 January; 145:104083.

(d) SYNERGISTIC ACTIVITIES -(see PAPPG Chapter II.C.2.f.(d))

1. American Nuclear Society: Executive Committee - Nuclear Nonproliferation Policy Division
2. University of Idaho: Faculty Advisor - American Nuclear Society University of Idaho Student Section
3. Idaho Section of the American Nuclear Society: Coordinator - Smoke Detector Donation Program