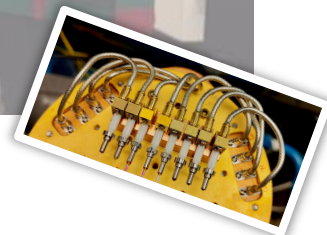


PHAmily Update

December 2020



A newsletter celebrating student success around PHAS!

Publications

from PHAS students who were first or second author

Lingyue Sun, “Variation in inter-institutional plan quality when adopting a hypofractionated protocol for prostate cancer external beam radiation therapy”, *International Journal of Radiation Oncology, Biology, Physics*, June 2020

Aaron Barclay, “Spectra of CO₂-N₂ dimer in the 4.2 μ m region: Symmetry breaking of the intramolecular CO₂ bend, the intermolecular bend, and higher K-values for the fundamental”, *The Journal of Chemical Physics*, July 2020

Faezeh Kimiaee Asadi, Stephen Wein, “Cavity-assisted controlled phase-flip gates”, *Physical Review A*, July 2020

Faezeh Kimiaee Asadi, Stephen Wein, “Protocols for long-distance quantum communication with single ¹⁶⁷Er ions”, *Quantum Science and Technology*, September 2020

Stephen Wein, Jia-Wei Ji, Yu-Feng Wu, Faezeh Kimiaee Asadi, “Analyzing photon-count heralded entanglement generation between solid-state spin qubits by decomposing the master-equation dynamics”, *Physical Review A*, September 2020

Devin Van Elburg, “Dosimetry of a sonolucent material for an ultrasound-compatible gynecologic high-dose-rate brachytherapy cylinder using Monte Carlo simulation and radiochromic film” *Brachytherapy*, October 2020

Defences and Candidacies

Hamid Kaviani, PhD Defence

Faezeh Kimiaee Asadi, PhD Defence

Sourabh Kumar, PhD Defence

Anna Ordog, PhD Defence

Sarah Wepler, PhD Defence

Bipinmeet Chawla, MSc Defence

Murali Krishna Kurmapu, MSc Defence

Carlton-James Osakwe, MSc Defence

Yufeng Wu, MSc Defence

Davor Curic, Candidacy

Salini Karuvade, Candidacy

Nehad Mabrouk, Candidacy

Gaurav Saxena, Candidacy

Prasoon Kumar Shandilya, Candidacy

Lingyue Sun, Candidacy

Devin Van Elburg, Candidacy

Please let the DGA know about your and your group's future successes!

Pictures, from left to right: STEVE, an aurora-like phenomenon, taken by Neil Zeller; PHAS holiday party 2019; Superconducting nano-wire single-photon detectors, courtesy of Dr Daniel Oblak