

Derek Fujimoto

Postdoctoral Researcher in Physics



About me

As an experienced and methodical researcher, I've always been passionate about learning new things. Although I'm currently a part of a multinational particle physics collaboration, in my graduate studies I used β -NMR and large-scale simulations to understand the motion of molecules in glass forming materials. I've published papers in journals attributed to particle physics, physical chemistry, condensed matter, and software. As a result, I have developed a very broad background and skill set, and am effective both in the lab and analyzing data. I enjoy working as a part of a team, both as mentor and mentee, but am very independent and self-motivated.

More project-related stuff here
Suspendisse in odio. In elit diam, cursus vitae, venenatis in, molestie in, leo. Cras ornare. Nulla libero. Phasellus feugiat mattis libero. Sed vehicula aliquam ligula. Nullam lacinia, felis vel dignissim sodales, enim lectus lobortis diam, quis nonummy mauris odio auctor tortor. Integer in dui nec lacus bibendum ultrices. Etiam odio elit, aliquam et, porttitor id, interdum cursus, elit. Nulla eleifend tempor mauris. In vel arcu quis pede laoreet vulputate.

Languages

English • French

Python • Cython • Julia • C++
MATLAB • BASH • ROOT
L^AT_EX

LinkedIn

Github

Scholar

AT A GLANCE

- Ph.D. in Physics
- Nearly 2 years as a Postdoctoral Researcher, supervising 7 undergraduate students
- 8 years research experience on a wide array of topics
- 27 academic publications
- Strong programming, data analysis, experiment, and interpersonal skills

RECENT EXPERIENCE

2021–

Postdoctoral Researcher in Particle Physics TRIUMF



Magnetic field characterization, measurement, and shielding for the ultra-cold neutron group. Hired and supervised students, designed and conducted experiments in a multinational collaboration. Over-saw commissioning of a \$2.5M magnetically shielded room.

2015–2021

Graduate Research Assistant in Soft Matter University of British Columbia



Designed and conducted beta-detected NMR experiments in ionic liquids and polymer glasses using a radioactive ion beam at TRIUMF. Wrote molecular dynamics simulations of polymer thin films on large high-performance computing clusters.

EDUCATION

2021

Physics

Ph.D. • University of British Columbia



2015

Physics

M.Sc. • University of British Columbia



2013

Physics

B.Sc. • McGill University



ACADEMIC PUBLICATIONS

Full academic CV [here](#).

- 18 peer reviewed publications (4 first author)
- 9 conference proceedings (2 first author)
- 7 presentations and 5 posters at international conferences and workshops

AWARDS

- 2017** Killam Graduate Teaching Assistant Award
- 2015** Stuart Blusson Quantum Matter Institute QuEST Fellowship

COMPLEMENTARY EDUCATION

- 2023** Crane Operator Training
- 2022** Advanced Radiation Protection Training
- 2018** Instructional Skills Workshop
- 2014** Laser Safety
- 2014** Radioactive Calibration Sources

SOFTWARE DEVELOPMENT

- bfit** General-purpose β -NMR analysis GUI and python API, now the definitive analysis program
- bccd** β -NMR beamspot analysis GUI and python API
- mudpy** TRIUMF μ SR file reader
- QZFM** Unofficial QuSpin Python API: serial communication over USB

ADDITIONAL SKILLS

- Science** UHV systems, clean room procedures, cryogenics, ion beams, Monte Carlo, signal processing, DAQ, technical writing, and general lab skills.
- Engineering** Solidworks, 3D printing.
- Programming** numpy, scipy, pandas, matplotlib, linux.
- Leadership** Team management, performance assessment, project supervision.
- Other Software** Git, Gaussian, LAMMPS, MS Word, MS Excel, VSCode, GIMP, Inkscape