Adam A. S. Green

adam.aagen.green@gmail.com – (720) 278 5986

Key Skills and Highlights

Programming	*Python* (pandas, matplotlib, numpy, scipy, trackpy), *FORTRAN* (lapack), *Mathematica*, *openFOAM*, LaTeX
Mathematics	Eigenvalue and eigenvector problems, spatial defect tracking, Brownian/stochastic motion, perturbation analysis, electro-optic behaviour of soft matter systems
Communication	Skilled scientific writer and communicator, experienced interdisciplinary and international collaborator, mentorship and supervision of 4 undergraduate research students
Achievements	First place in 2017 NSF MRSEC Center *Science Slam* (3-minute scientific presentation competition), 4 peer-reviewed publications in 4 distinct subfields, Poster presentation at the International Liquid Crystal Conference

Education

Ph.D Physics (in progress) University of Colorado Boulder ..... July 2019
–Liquid Crystal Phases and Dynamics: Correlations in the 2D XY Model, Helical Bannana Phases, and 2D Fluid Dynamics

M.S. Physics University of Colorado Boulder ..... May 2015

B.Sc. Physics Honours (First Class) University of Calgary ..... May 2011
-Improving the Efficiency of a Controlled Dipole Quantum Memory

Experience

Graduate Researcher University of Colorado Boulder, CO, USA 2015-Present

Fluid Dynamics	*Investigated the 2D fluid dynamics of freely-suspended liquid crystals (published)*
Materials Science	*Discovered two new phases of matter using electro-optical, X-ray techniques (published)*
Soft Matter	*Investigated the nucleation of topological defects in liquid crystal system*

Graduate Researcher NIST, Boulder, CO, USA 2013-2015

Optics	*Designed and fabricated whispering gallery optical cavities for laser frequency stabilization applications (published)*

Undergraduate Researcher University of Calgary, AB, CAN 2007-2012

Quantum Optics	*Designed an optimally efficient optical quantum memory (published)*
Quantum Statistics	*Investigated statistical convergence of bosonic and fermionic systems*
Complexity Science	*Studied the time and space correlations of earthquake magnitudes (published)*

Publications

A gas flowmeter with linear sensitivty based on freely-suspended nanofilms ... Appl. Phys. Lett. **114**, 163705 (2019)
Chiral incommensurate helical phase in a smectic of achiral bent-core mesogens Phys. Rev. Lett. **122**, 107801 (2019)
Dual-microcavity narrow-linewidth Brillouin laser Optica Vol 2, **Issue 3**, (2015)
Controllable-dipole quantum memory Phys. Rev. A **86**, 013813 (2012)
Are earthquake magnitudes clustered? Phys. Rev. Lett. **106**, 108502 (2011)

Hobbies and Interests

- *Birdwatching and Nature*— the Front Range is rich in its variety of ecosystems and native species, and it is a constant delight to be out among them.
- *Board Games*— Fellow graduate students introduced me to the joys of gaming, my current favourite is Carcassonne.