Samuel Gagnon-Hartman

COSMOLOGY · MACHINE LEARNING · LIKELIHOOD-FREE INFERENCE
MULTI-MESSENGER ASTROPHYSICS

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Education

Sept. 2020 – present
M.Sc. Physics and Astronomy — Bishop's University, Sherbrooke
Advisors: John Ruan, Daryl Haggard
Centre for Research in Astrophysics of Québec (CRAQ) member.

Sept. 2017 – May 2020
B.Sc. Physics — McGill University, Montréal
Thesis Title: Power Management of Hard Drives in the ALBATROS Interferometer
Thesis Supervisor: Hsin Cynthia Chiang

Publications

Journal Publications

1. **Samuel Gagnon-Hartman**, Yue Cui, Adrian Liu, Siamak Ravanbakhsh. Recovering the Lost Wedge Modes in 21-cm Foregrounds. Pending publication in *Monthly Notices of the Royal Astronomical Society*. Submitted 18/2/2021.
2. **Samuel Gagnon-Hartman**. The Congo Wars: The Curse of Mineral Wealth Explored. *McGill International Review*. Published 30/4/2018. Edited by Benjamin Aloi.

Honours and Awards

September 2020
Graduate Entrance Scholarship — Bishop's University Foundation
CAD 10,000 awarded to two starting graduate students at Bishop's University.

Skills

Programming
Python, Java
Proficient in the machine learning packages `tensorflow`, `pytorch`, and `keras`, as well as the scientific computing packages `numpy` and `scipy`.

Languages
English, French

Invited Professional Talks

March 2021
HERA General Meeting

Contributed Professional Talks

January 2021
SAZERAC 21-cm SIP

October 2020
Bishop's University Physics Seminar

Popular Talks

May 2019
Royal Astronomical Society of Canada, Montréal Centre

Service to the Community

Sept. 2019 – May 2020
VP External Affairs — McGill Society of Physics Students
Represented undergraduate physics students at the faculty level.

Jan. 2018 – Dec. 2019 **Payload Designer** McGill Space Group

Designed camera and lens system for an Earth-imaging satellite as part of McGill's submission to the Canadian Satellite Design Challenge.