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## PRESENTATIONS & APPEARANCES

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I have given numerous presentations on the work being done by me and my collaborators to the scientific community and the public along with providing lectures and tutorials and participating in panel discussions. The list below is mostly complete beyond 2022 (the beginning of my tenure as a faculty member) and modestly complete before then (2011-2022).

### Invited Talks

NSF IAIFI Summer Workshop Uncertainty and Interpretability in Machine Learning Models	August 2023
MaxEnt 2023 Workshop Frontiers of Nested Sampling Meeting-within-a-Meeting Musings on Nested Sampling from Interactions with Everyday Users	July 2023
Statistical Challenges in Modern Astronomy VIII Extending Bayesian Modeling Approaches to ML Applications	June 2023
IAU General Assembly 2022 Machine Learning in Astronomy: Possibilities and Pitfall Incorporating Errors into Machine Learning Methods	August 2022
UCLA IPAM Mathematical and Computational Challenges in the Era of Gravitational Wave Astronomy An Introduction to (Dynamic) Nested Sampling	November 2021
University of Surrey Towards a Cross-Research Platform for Hosting Bayesian Data-Fitting Tools Keynote Address: An Introduction to Nested Sampling	July 2021
Harvard University CMSA Big Data Conference Revealing the Milky Way's Dust-iny	August 2018

### Colloquia & Seminars

Carnegie Mellon University	September 2023
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STAMPS Seminar

# Nested Sampling: Past, Present, and Future

University of Pittsburgh

September 2023

Astronomy Seminar

From Panchromatic Images to Stellar Ages and Beyond

Center for Astrophysics | Harvard &amp; Smithsonian

August 2023

AstroAI Seminar

## Extending Statistical Thinking to ML Applications

McMaster University

April 2023

Astronomy Lunch Seminar

From Panchromatic Images to Stellar Ages and Beyond

University of Waterloo

February 2023

Astroseminar

From Panchromatic Images to Stellar Ages and Beyond

NRC Herzberg Astronomy and Astrophysics Research Centre

November 2022

Colloquium

# Galaxy Evolution through the Eyes of the Milky Way

Queen's University

November 2022

Astronomy Seminar

# Galaxy Evolution through the Eyes of the Milky Way

Institute for Advanced Study

August 2022

Astrophysics Seminar

From Panchromatic Images to Stellar Ages and Beyond

Saint Mary's University

August 2022

Department of Astronomy and Physics Colloquium

## More Data + More Parameters = More Fun with Galaxy Evolution

CASCA

April 2022

CANadian Virtual Astronomy Seminar (CANVAS)

## Mapping the Milky Way Near and Far

IAU-IAA

April 2022

Astrostats and Astroinfo Seminar

# Statistical Challenges in Stellar Parameter Estimation from Theory and Data

Saint Mary's University

January 2022

Data Analytics Seminar

An Introduction to (Dynamic) Nested Sampling

University of Toronto

October 2021

Toronto Data Workshop

Stars, Galaxies, and Everything In-Between: Galaxy Evolution Near and Far with Large Datasets

Penn State University

September 2021

Department of Astronomy and Astrophysics Colloquium

Mapping the Milky Way with Stars and Dust

University of Chicago

April 2021

Kavli Institute for Cosmological Physics Seminar

Cosmological Cartography with Photometric Redshifts

CANSSI Ontario

February 2021

Data Science Applied Research and Education Seminar

Mapping the Milky Way in the Age of Gaia

University of Florida

September 2020

Department of Astronomy Colloquium

Enabling Data-Driven Discovery in the Milky Way and Beyond Using Large Astronomical Datasets

Villanova University

October 2019

Department of Astrophysics and Planetary Science Colloquium

Exploring the Galaxy Near and Far in the Age of Gaia

Harvard University

June 2019

Summer Colloquium (joint with Catherine Zucker)

Charting Nearby Molecular Clouds with Gaia: A New Map of Our Local Interstellar Medium

University of Cambridge

April 2019

Data Intensive Science Seminar

Mapping the 3-D Distribution of Dust in the Milky Way with Stellar Photometry

UMass Amherst

October 2017

Data Science Tea

Big Data Inference: Using Hierarchical Bayes and Machine Learning to Improve Photometric Redshifts

Harvard University

September 2017

CHASC Astrostatistics Seminar

An Introduction to Dynamic Nested Sampling

Kavli IPMU

March 2016

Astronomy Lunch Seminar

Mapping, Visualizing, and Exploiting the Color-Redshift Relation

University of Tsukuba  
Theoretical Astrophysics Seminar  
The Evolution of Star-Forming Galaxies over Cosmic Time  
August 2013

### **Contributed Talks**

University of Michigan  
2023 Clusters & Streams Workshop  
Rapid Stellar Parameter Inference with Probabilistic Machine Learning  
August 2023

JSM 2023  
True North Strong and... Amazing at Astrostatistics! (Invited Paper Session)  
Connecting Galaxy Evolution between Observation, Simulation, and Theory  
August 2023

Surveys to Discovery (S2D) Conference  
Photometric Biases in Modern Surveys  
May 2023

2023 Spring Research Conference (SRC)  
From Light to Mass and Back Again: Exploring Galaxy Evolution with “New” Methods and “Old” Outcomes  
May 2023

McMaster University  
2022 Clusters Workshop  
Panchromatic Modelling of Co-Eval Stellar Populations  
August 2022

JSM 2022  
Advances in Astrostatistics in the Great White North (Invited Paper Session)  
Mapping the Milky Way in 5-D with Big Data  
August 2022

Seeing the Future: A Conference in Honour of Alyssa Goodman  
Machine Learning in the Era of Astronomically Big Data  
May 2022

AAS 238  
Special Session (Statistics Discussant)  
Unaccounted Uncertainties: The Role of Systematics in Astrophysics  
June 2021

JSM 2020  
Astrostatistics Interest Group: Student Paper Award (Topic-Contributed Paper Session)  
Photometric Biases in Modern Astronomical Surveys  
August 2020

Lorentz Center: Colours of the Universe Workshop  
Challenges Working with Posterior Distributions (with Alex Malz)  
September 2018

COSMO21 2016  
Improving Photometric Redshifts for Hyper Suprime-Cam  
May 2016

### **Lectures & Tutorials**

2023 ESO Conference	September 2023
Two in a million – The interplay between binaries and star clusters	
Machine Learning for Star Cluster Science	
University of Michigan	August 2023
2023 Clusters & Streams Workshop	
Dimensionality Reduction: Applications to Star Cluster Science	
NSF IAIFI Summer School	August 2023
Uncertainty and Interpretability in Machine Learning Models (with Alex Gagliano)	
Statistical Challenges in Modern Astronomy VIII	June 2023
A Tutorial of (Dynamic) Nested Sampling	
Astro Hack Week 2020	August 2020
Introduction to Bayesian Inference with Linear Regression	

## Public Talks & Events

RASC (Toronto Centre)	October 2021
Speaker's Night	
Mapping the Milky Way in the Age of Gaia	
RASC (Ottawa Centre)	June 2021
Monthly Meeting	
Mapping the Milky Way in the Age of Gaia	
GitHub Satellite 2019	May 2019
Keynote participant for open-source code contributions ( <i>dynesty</i> ) in the analysis of M87* by the EHT collaboration	

## Posters

2023 ESO Conference	September 2023
Two in a million – The interplay between binaries and star clusters	
A machine-learning led search for extra-tidal stars of globular clusters	
2022 CASCA Annual General Meeting	May 2022
Data Driven Stellar Spectral Modelling with GSPICE	
2021 CASCA Annual General Meeting	May 2021
Deriving Stellar Properties, Distances, and Reddenings from Photometry (and Astrometry) with brutus	
Bayes Comp 2018	March 2018
Dynamic Nested Sampling with <i>dynesty</i>	
AAS 229	January 2017

Improving Photometric Redshifts for Hyper Suprime-Cam (HSC) with Hierarchical Bayes and Machine Learning

AAS 223 January 2014

Parallel Galaxy Main Sequence and Quasar Evolution from  $z=0-6$   
(AAS Chamblis Award Honorable Mention)

AAS 221 January 2013

An In-Depth Analysis of the Kepler Low-Amplitude Blazhko RR Lyrae Stars: First Steps and Comparing Data Reduction Methods

2012 KASC Meeting June 2012

An In-Depth Analysis of the Kepler Low-Amplitude Blazhko RR Lyrae Stars: First Steps and Comparing Data Reduction Methods

AAS 219 January 2012

The X-ray Counterpart of the High-B Pulsar J0726-2612  
(AAS Chamblis Award)