ACADIA PHYSICS SEMINAR

Indigenous Knowledges and Western Astronomy: Indigenizing the Drake Equation

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Friday, October 31, 2025 at 12:30 pm
Huggins Science Hall 206 (HSH 206)

The Drake Equation is a thought experiment whose purpose is to understand the ingredients necessary for life and advanced technological civilizations to exist on other worlds in our galaxy. However, beyond reflecting on life on Earth we have no knowledge of many of these ingredients, such as the number of planets that have life, the number of with intelligent life, the number with advanced civilizations, and the lifetimes of these civilizations. In this talk I will review the Drake Equation and the biases that scientists have traditionally had in discussing this equation and how it has led to the current searches of biological and technological signatures. I will discuss how the Drake Equation looks different if we consider it through the lens of Indigenous methods and sciences and how these methods would lead to a dramatically different view of life in our Galaxy.

Hilding Neilson, PhD, is an astrophysicist and professor in the Department of Physics & Physical Oceanography at Memorial University of Newfoundland & Labrador in St. John's Newfoundland where his research focuses on stellar and exoplanet physics and the stories we can learn from stars and planets. He is also Mi'kmaw from Ktaqmkuk and works integrate Indigenous knoweldges in astrophysics research and how we relate to outer space exploitation and the future of large astronomical observatories. Dr. Neilson has been featured on numerous outlets including the CBC, Globe and Mail, the Guardian and more. He has also published over 50 research articles.