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Decolonizing Light –Exploring Approaches to Decolonize Physics

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In 2019, we, as a group of scholars and community members working in fields as different as Physics, First Peoples Studies, Science Education, Decolonizing Curriculum and Pedagogy, Environmental Science, and Science and Technology Studies, came together to explore ways of decolonizing physics. Funded by the New Frontiers in Research Fund (NFRF), we decided to exemplarily focus on light (rather than on optics, as optics is a physical field and narrows down the concept of light and what can be said about it), because light is ubiquitous in every society, language, and culture. In everyday life, light is a key element that defines familiar aspects like colour and warmth. In physics, light is exploited as the primary carrier of information about nature (e.g., in astronomy), and used as the primary probe for the fundamental properties of matter (e.g., in spectroscopy). Our work is guided by the principles of centring Indigenous concerns and creating meaningful research and educational opportunities that support Indigenous sovereignty, particularly with regard to physics and science. In this talk, I will present the work that has been done so far, as well as the challenges, the changes, the risks, and the rewards that we have been experiencing in and with our project. The talk will take the attendees on a journey of what we have learned, what the project has changed, and what changes we, from our perspective, consider necessary to pursue physics in a non-colonial way.

Keyword-1

decolonizing

Keyword-2

light

Keyword-3

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