

NDSU NORTH DAKOTA
STATE UNIVERSITY

FACULTY LECTURESHIP NO 64

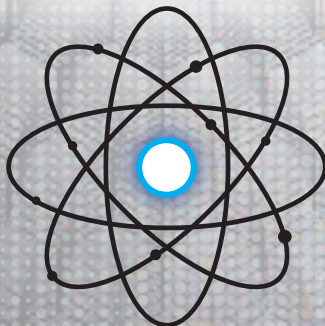
MILA KRYJEVSKAIA

PROFESSOR,
GRADUATE PROGRAM COORDINATOR
Department of Physics



U N R A V E L I N G
INTUITION
IN PHYSICS

When to Trust It and When to Think Twice



April 23, 2025
3-4 p.m.

Memorial Union
Anishinaabe Theatre
also offered via Zoom
Reception to follow

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Mila Kryjevskaja is a professor of physics in the Department of Physics and the STEM Education Ph.D. program at NDSU. Her research in physics education focuses on generating broadly applicable insights into learning and teaching to inform innovations in instructional practices. She actively contributes to advancing research-based teaching at the national level and currently serves as the vice-chair of the American Physical Society's Committee on Education.

ABSTRACT

Intuition holds extraordinary power – it can supercharge our thinking or undermine it entirely. In physics, intuition is no exception. Experts often view it as a trusted ally that enhances reasoning and makes problem-solving more enjoyable. For novices, the experience can be quite different. Have you ever felt certain of an answer, only to be let down by your own thinking – whether in daily life, on an exam or in a lab? Insights from cognitive psychology and physics education research shed light on why this happens. They reveal the intricate reasoning pathways we follow and the cognitive hazards we all face. This talk explores how to embrace the power of intuition while learning when to question it – for better thinking in physics and beyond.

