

Colloquium

Thursday, March 5th, 2026 at 4 p.m.
Physics & Astronomy Building (PAB) 1-434

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Possible Observational Constraints on Fundamental Physics

It is notoriously difficult to get empirical data that bear reasonably directly on issues in the foundations of physics, and especially so for questions of understanding quantum mechanics (which are sometimes characterized as “philosophical”) and quantum gravity. Certain avenues for experimental input—for example in high-energy scattering—are becoming prohibitively costly, and there can be a sense of skepticism that empirical results can be brought to bear on these questions any more.

This talk will consist of two parts: a brief and inadequate overview of some situations where relevant observational data might possibly be found, and then a more detailed discussion of some experimental possibilities that have generally been overlooked. I will suggest that the connection of these experimental data to foundational questions could be relatively direct, and in particular cases could completely re-orient foundational approaches.

Hosted by Seth Putterman