



INVITATION

as part of the Particle Physics Seminar

to the talk by

Joshua LOCKYER

(University of Graz)

on

“Walking in the Hidden Valley: Exploring dark parton showers in the conformal window”

Abstract:

Dark-showers offer a compelling collider signature for Hidden Valley models featuring a confining dark sector. Our work extends these investigations to models with many more dark quark flavours where such theories enter the “conformal window”. Here, existing running coupling approximations in current event generators break down and so we must implement the exact two-loop RGE solution.

This, alongside the two-loop Sudakov factor that employs this coupling, allows us to present the first phenomenological results of the parton showers of such near-conformal dark sectors.

Time: Tuesday, 8 April 2025, 4:15 p.m.

Location: Erwin-Schrödinger Lecture Hall, 1090 Vienna, Boltzmannngasse 5, 5th floor

Join Zoom Meeting - Meeting ID: 933 4269 3866 Passcode: 185096
<https://univienne.zoom.us/j/93342693866?pwd=aUpTR0VJNUhJY2Q0ajdaKzI1YWVhQ09>