



# EINLADUNG

im Rahmen des Teilchenphysikseminars

zum Vortrag von

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(University of Oslo)

über

***“Minimal sterile neutrino dark matter“***

**Abstract:**

Standard Sterile neutrinos constitute a very well-motivated extension of the standard model of particle physics. For masses in the keV range, furthermore, they provide excellent candidates for the cosmologically observed dark matter. Producing them with the correct primordial abundance requires additional new physics, however, given that the simplest production mechanism via oscillations is observationally ruled out.

In this talk I will briefly review generic mechanisms for the genesis of dark matter, with a focus on a newly proposed production scenario that is characterized by an era of exponential growth of the dark matter density in the early universe. I will then demonstrate how such a scenario is naturally realized for sterile neutrinos in a very minimal setup. I further show how this idea opens up highly relevant -- and relatively shortly testable -- new parameter space for sterile neutrino dark matter.

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**Zeit: Freitag, 7.6.2024, 16:00h**

**Ort: Erwin-Schrödinger-Hörsaal, Boltzmannngasse 5, 5. Stock**

Join Zoom Meeting - Meeting ID: 933 4269 3866 Passcode: 185096  
<https://univienne.zoom.us/j/93342693866?pwd=aUpTR0VJNUhJY2Q0ajdaKzI1YWVBR09>