

FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING

MLL-KOLLOQUIUM

Donnerstag, 22.06.2017, 16¹⁵ Uhr

Hörsaal der LMU in Garching, Am Coulombwall 1
Treffen zum gemeinsamen Kaffee 16 Uhr

Dr. Martin Vollmann

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Low frequency window for searches for indirect detection of Dark Matter

Enormous experimental progress in the last few years has intensified the search for non-gravitational interactions of dark matter (DM). These interactions are expected to manifest themselves through nuclear recoils in ground-based experiments (direct detection), missing-energy signatures in particle colliders or through distinct signatures in the sky (indirect detection). In this talk I will introduce the field of indirect DM detection by briefly discussing the relevant physical processes and their detection prospects. In particular, I will focus on the diffuse radio emission in the form of synchrotron radiation that is associated with the annihilation of weakly interacting massive particles (WIMPs). As a practical example and based on my own research, I will discuss the phenomenology of this detection window for DM by using Galactic high velocity clouds as targets.

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