

FAKULTÄT für PHYSIK  
LUDWIG-MAXIMILIANS-UNIVERSITÄT  
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT  
TECHNISCHE UNIVERSITÄT MÜNCHEN  
MÜNCHEN/GARCHING

## MLL-KOLLOQUIUM

Donnerstag, 04.05.2017, 16<sup>15</sup> Uhr

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

Priv. Doz. Dr. Oleg Brandt  
(Kirchhoff-Institut, Univ. Heidelberg)

### Looking out for New Physics through the Higgs Window

As the youngest and one of the experimentally least known regions of the Standard Model, the Higgs sector provides exciting opportunities as a window for New Physics searches. Many extensions of the Standard Model predict enhanced Higgs boson production rates, in pairs or in association with electroweak gauge bosons. Beyond this, the Higgs boson acts as a portal between Standard Model and Dark Matter particles in many New Physics scenarios, and can be used as a collider-based probe for Dark Matter. In this talk, I will present recent searches for New Physics in the Higgs sector using proton-proton collision data at 13 TeV with the ATLAS and CMS detectors. A particular focus is placed on hadronic final states, which often combine the highest branching ratio and the highest sensitivity to New Physics.

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