

## Search for new physics with leptons in the final state

*Tuesday 26 November 2019 14:00 (20 minutes)*

This presentation is a potpourri of Aachen results searching for BSM. One key search looks for excited leptons ( $e$  and  $\mu$ ) in the contact interaction channel providing the maximum sensitivity in terms of  $l$ star mass. To put it in context, its sensitivity in terms of mass and compositeness scale  $\Lambda$  is compared with the  $llg$  channel. We also search for new heavy charged boson,  $W'$ , in the classical channels with  $e\nu$  or  $\mu\nu$  in the final state providing the max mass reach. The decay to  $\tau+\nu$  is gaining interest from flavour observations similar to other searches with 3rd particles. Besides searches driven by specific models, a model unspecific search is looking at all event classes to make sure we don't miss any sign of new physics.

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**Session Classification:** Physics beyond the SM