

LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

## ARNOLD SOMMERFELD CENTER FOR THEORETICAL PHYSICS



## Sommerfeld Theory Colloquium

Prof. Chris Quigg

## **Fermilab**

## **Gedanken Worlds without Higgs Fields**

To illuminate how electroweak symmetry breaking shapes the physical world, we investigate what the world would be like in the absence of electroweak symmetry breaking at the usual scale, whether by the conventional Higgs mechanism or by any of its alternatives, including dynamical symmetry breaking and higher-dimensional formulations. Many interesting characteristics of the models stem from the fact that the effective strength of the weak interactions is much closer to that of the residual strong interactions than in the real world. The Higgsfree models not only provide informative contrasts to the real world, but also lead us to consider intriguing issues in the application of field theory to the real world.

Wednesday, 21<sup>th</sup> October 09, 10:30 h, Room 348 / 349, Theresienstr. 37 / III

Prof. G. Buchalla