

# Weak interactions: What foundational lessons can be learnt?

*Tuesday, 24 March 2015 11:30 (45 minutes)*

Four (known) forces are ruling our Universe; the weak interaction is the only one violating discrete symmetries. This talk presents a surprising relation between the violation of such symmetries and various foundational concepts of quantum mechanics for spin-less (mesons) and spin particles (hyperons). These systems show also an unexpected and puzzling relation to another big open question: Why is our Universe dominated by matter, why did the antimatter slip off the map?

**Presenter:** HIESMAYR, Beatrix (University of Vienna)

**Session Classification:** Testing fundamental principles