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## **Lepton flavour and the matter-antimatter asymmetry of the Universe**

*Tuesday, 10 July 2018 11:00 (45 minutes)*

I will discuss the role of lepton flavour in scalar triplet leptogenesis, a mechanism for the generation of the baryon asymmetry of the Universe involving a heavy scalar triplet, which decays in a CP-violating way into leptons and antileptons. I will show that the effects of the different lepton flavours can never be neglected, and that their proper description at high temperature requires flavour-covariant Boltzmann equations. The numerical impact of these lepton flavour effects on the predicted baryon asymmetry can be very significant in all temperature regimes, contrary to the standard leptogenesis scenario with heavy right-handed neutrinos.

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