

## MP 8: HV van Suijlekom

Time: Wednesday 11:00–11:40

Location: HFT-FT 101

**Invited Talk**

MP 8.1 Wed 11:00 HFT-FT 101

**Semigroup of gauge fields from noncommutative geometry** —

•WALTER VAN SUIJLEKOM — Radboud University Nijmegen, Netherlands

Starting with an algebra, we define a semigroup which extends the group of invertible elements in that algebra. As we will explain, this

semigroup describes inner perturbations of noncommutative manifolds, and has applications to gauge theories in physics.

We will present some elementary examples of the semigroup associated to matrix algebras, and to (smooth) functions on a manifold. This has applications to the Standard Model of particle physics and beyond.