

# Bethe Colloquium

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## Particle Scattering and Number Theory

From the softest of interactions of a magnetic field with an electron, to the most violent collisions at the Large Hadron Collider, precision quantum field theory produces numbers and functions with interesting number-theoretic properties. In many examples a co-action principle holds, an invariance under a „cosmic“ Galois group. I will provide several arenas in which this principle can be seen at work, including perhaps the richest set of theoretical data, scattering amplitudes in planar N=4 super-Yang-Mills theory.

### Lecture Hall 1

Physikalisches Institut  
Nussallee 12  
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**Thursday, 9<sup>th</sup> May, 2019, at 16 c.t.**

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