CRC 1624 HIGHER STRUCTURES, MODULI SPACES AND INTEGRABILITY

Talk March 31, 11:00 – 11:50

Vivek Shende

Centre for Quantum Mathematics, Syddansk Universitet

A universal characterization of the curved homotopy Lie and associative operads

The A-infinity and L-infinity operads are fundamental higher structures playing key roles in mathematics and physics, ranging from deformation theory to string field theory. In all contexts, the procedure of `twisting an algebra by a Maurer-Cartan element' is fundamental. In this talk we will give universal characterizations of these structures (as initial objects in appropriate categories of decorated operads) and a universal characterization of the twisting procedure (in terms of the adjoint functor to a forgetful map). This is joint work with Guillaume Leplante-Anfossi and Adrian Petr.