Institut Henri Poincaré
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String Theory in Greater Paris

Rencontres Théoriciennes

“Supergravité, théorie des cordes et théorie M”

Jeudi 11 Octobre 2018, 10:00

Mathew Bullimore

Durham University

Secondary Products in Supersymmetric Field Theory

The product of local operators in a topological quantum field theory in dimension greater than one is commutative, as is more generally the product of extended operators of codimension greater than one. In theories of cohomological type these commutative products are accompanied by secondary operations, which capture linking or braiding of operators, and behave as (graded) Poisson brackets with respect to the primary product. We describe the mathematical structures involved and illustrate this general phenomenon in a range of physical examples arising from supersymmetric field theories in spacetime dimension two, three, and four. Based on work with Chris Beem, David Ben-Zvi, Tudor Dimofte & Andy Neitzke.

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