

# Mathematical Physics Seminar at Boston University

Thu, Nov 29th, 3:30pm

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**MCS 180**

## **Properties of n-dimensional iterated integrals**

First we will consider iterated integrals over a path. And we will describe their properties. Then we will define n dimensional iterated integrals over a membrane. They form a Hopf algebra, when considered over the same membrane. Also the generating series is a solution of a differential equation. Also there is a way of making the membrane algebraic. Then iterated integrals over a membrane are periods. Finally, union of two adjacent membranes leads to a relation between three Hopf algebras.

<http://math.bu.edu/research/mathphys/seminar.html>