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## Variations of BPS structure and enumerative geometry (1)

*Tuesday, December 4, 2018 10:00 AM (1 hour)*

A “variation of BPS structure” is a nice name for the kind of infinite dimensional bundle with connection one can construct, at least formally, starting from the Donaldson-Thomas type invariants of a Calabi-Yau threefold. In the first part of the talk I will offer an introduction to this circle of ideas, pointing to a lot of references. Then I will focus on the concrete example of what happens in this construction when we start with the DT invariants counting 1-dimensional torsion sheaves, or more generally sheaf-theoretic Gopakumar-Vafa invariants. The answer is closely related to the Gromov-Witten partition function. This second part is based on work of Bridgeland and on some work in progress.

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