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**Pavel Mnev\*** (pmnev@nd.edu), 255 Hurley, Notre Dame, IN 46556. *Perturbative BV theories with Segal-like gluing.*

We will give an overview of the cohomological symplectic (BV-BFV) approach to perturbative quantization of gauge theories on manifolds with boundary. We present explicit examples where partition functions constructed within the BV-BFV framework combine the features of Atiyah-Segal partition functions (compatibility with gluing/cutting of manifolds) with features of effective Batalin-Vilkovisky actions (they satisfy a version of quantum master equation) and have a version of Wilsonian renormalization flow built into them. Partition functions are expressed in terms of the R-torsion and configuration space integrals and in some cases admit a combinatorial (cellular) presentation. This is a report on a joint work with Alberto S. Cattaneo and Nicolai Reshetikhin. (Received August 28, 2016)