

# Character varieties and cohomological DT invariants

*Tuesday, June 20, 2017 4:10 PM (1 hour)*

## **Abstract**

I will pick up where Sven left off, and explain how the cohomology of smooth character varieties for a Riemann surface  $S$  may (conjecturally) be considered as the cohomological DT invariants for the category of representations of the fundamental group of  $S$ . That these cohomological DT invariants exist at all is a consequence of the cohomological integrality theorem, and that they should be given by the above conjecture is strongly suggested by work of Hausel and Villegas. I'll try to explain all this, along with some more recent developments.

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