

## Central charges and their constraints

*mercredi 29 août 2018 10:00 (45 minutes)*

I will introduce the idea of central charges and how they can imply constraints on UV/IR asymptotics of RG flows akin to 't Hooft anomalies. I will review some results on their monotonicity properties and the so-called a-theorem stating that the central charge 'a' decreases along the RG flow. I will then show how can central charges be computed in realistic theories and present examples. These examples will include both asymptotically safe and asymptotically free theories. Finally I will discuss the relation between central charges and certain convergent sum rules, which can provide a way of putting the a-theorem on lattice.

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