## 54th Schladming Winter School of Theoretical Physics



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## **Christiansen - Local Quantum Gravity**

Monday, 22 February 2016 17:25 (20 minutes)

I investigate the ultraviolet behaviour of quantum gravity within a functional renormalization group approach. In particular, the scale- and momentum-dependence of the graviton propagator and the graviton three-point function are studied and the fixed point structure of the theory is analyzed. Moreover, a novel locality property as an essential feature of a well-defined renormalization group flow is introduced and locality in quantum gravity is discussed.

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