

Abstract

Two desirable properties of a quantum dynamics for Loop Quantum Gravity (LQG) are that its generators provide an anomaly free representation of the classical constraint algebra and that physical states which lie in the kernel of these generators encode propagation. I discuss recent progress in the articulation of these properties in a manner appropriate to LQG as well as in the identification of robust structural features of the putative quantum dynamics which encode these properties. This is an account of work done by myself as well a description of a key new classical identity derived in collaboration with Casey Tomlin.