

**Meeting:** 998, Houston, Texas, SS 7A, Special Session on Low Dimensional Topology

998-83-387            **J. Manuel Garcia-Islas\*** (islascimat.mx), Centro de Investigacion en Matematicas, Mineral de Valenciana, A.P 402, 36000 Guanajuato, Mexico. *Relations between Quantum Gravity and Topology.*

The study of quantum gravity has given place to different approaches. Loop Quantum Gravity is one of the main directions towards solving the problem, and the dynamics of the theory is believed to be given by the so called Spin Foam Models. These are combinatorial descriptions of space-time in terms of lattice triangulations. In some special cases they give rise as well to topological invariants of the manifold and of graph observables embedded on it. We present some of these investigations based on my research and future problems to deal with.

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