A quantum field theory for the atoms of space

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We give a brief introduction to the group field theory (GFT) formalism for quantum gravity, a 2nd quantised reformulation of loop quantum gravity and spin foam models and a group-theoretic enrichment of the purely combinatorial tensor models. We then review some recent key developments concerning: the definition and analysis of 4d gravity models, progress in GFT renormalisation, and the extraction of effective cosmological dynamics from GFT condensates.

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