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Linkage of rings and an approach to quantum gravity

We review basic postulates of causal set approach to quantum gravity. We show the emergence of cosmological constant in this theory, which is in concordance with observations and we study the notion of particles and fields. We introduce a different approach to quantum gravity in the second part. We mention that the longstanding problem of general relativity is the continuity of the spacetime. We argument for discretization of space to loops, which we call rings. We define basic processes for these rings, which could be considered like basic laws of quantum gravity. We present the problems, which can be solved inside this theory. We discuss the problem of background independence and arrow of time in this theory. We formulate one interesting mathematical problem from topology at the end.