



De Cifris Schola Latina



Friday 3rd July 2020 – at 3:00 p.m.

Roma Tre University

Teams Meeting, Department of Mathematics and Physics

FRANCESCO PASQUALE

Università di Roma Tor Vergata

**Stabilization and expansion of simple dynamic random graph models for
Bitcoin-like unstructured P2P networks**

Abstract: The Bitcoin P2P network is formed by thousands of nodes running the Bitcoin protocol. While the nodes participating in the network are mostly known, the peer discovery process in the protocol is explicitly designed to hide the global network structure. In this talk, we present a simple dynamic random graph model inspired by the peer discovery process in the Bitcoin protocol and we analyze its robustness with respect to stabilization and expansion: We show that the network dynamics quickly converges to a stable random graph that turns out to be a good expander, with high probability.

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Teams Meeting link: <https://bit.ly/2AWogQ0>

CONTATTI

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