

Demystifying Bitcoin

Rachid Guerraoui

School of Computer and Communication Sciences, EPFL, Switzerland

<https://lpdwww.epfl.ch/rachid/>

rachid.guerraoui@epfl.ch

Abstract

This talk will explain the bitcoin algorithm from the distributed computing perspective, precisely define the underlying double-payment problem, and present a much simpler alternative to solve the problem without relying on consensus and consuming so much energy.

Rachid Guerraoui is professor in Computer Science at EPFL where he leads the Distributed Computing Laboratory. He worked in the past with École des Mines de Paris, CEA Saclay, HP Labs in Palo Alto and MIT. He has been elected ACM Fellow and Professor of the College de France. He was awarded a Senior ERC Grant and a Google Focused Award.

2012 ACM Subject Classification Information systems → Electronic commerce; Computing methodologies → Distributed algorithms

Keywords and phrases Bitcoin, Payment systems

Digital Object Identifier 10.4230/LIPIcs.OPODIS.2019.1

Category Keynote Abstract



© Rachid Guerraoui;

licensed under Creative Commons License CC-BY

23rd International Conference on Principles of Distributed Systems (OPODIS 2019).

Editors: Pascal Felber, Roy Friedman, Seth Gilbert, and Avery Miller; Article No. 1; pp. 1:1–1:1

Leibniz International Proceedings in Informatics



LIPICs Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany