Abstract Submitted for the MAR17 Meeting of The American Physical Society

Game, cloud architecture and outreach for The BIG Bell CARLOS ABELLAN, JORDI TURA, MARTA GARCIA, FEDERICA Test. BEDUINI, ALINA HIRSCHMANN, VALERIO PRUNERI, ANTONIO ACIN, MARIA MARTI, MORGAN MITCHELL, ICFO - The Institute of Photonic Sciences — The BIG Bell test uses the input from the Bellsters, self-selected human participants introducing zeros and ones through an online videogame, to perform a suite of quantum physics experiments. In this talk, we will explore the videogame, the data infrastructure and the outreach efforts of the BIG Bell test collaboration. First, we will discuss how the game was designed so as to eliminate possible feedback mechanisms that could influence peoples behavior. Second, we will discuss the cloud architecture design for scalability as well as explain how we sent each individual bit from the users to the labs. Also, and using all the bits collected via the BIG Bell test interface, we will show a data analysis on human randomness, e.g. are younger Bellsters more random than older Bellsters? Finally, we will talk about the outreach and communication efforts of the BIG Bell test collaboration, exploring both the social media campaigns as well as the close interaction with teachers and educators to bring the project into classrooms.

> Carlos Abellan None

Date submitted: 11 Nov 2016 Electronic form version 1.4