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The BIG Bell Test: quantum physics experiments with direct public participation MORGAN MITCHELL, CARLOS ABELLAN, JORDI TURA, MARTA GARCIA MATOS, ALINA HIRSCHMANN, FEDERICA BEDUINI, VALERIO PRUNERI, ANTONIO ACIN, MARIA MARTI, ICFO - The Institute of Photonic Sciences, THE BIG BELL TEST COLLABORATION — The BIG Bell Test is a suite of physics experiments - tests of quantum nonlocality, quantum communications, and related experiments - that use crowd-sourced human randomness as an experimental resource. By connecting participants - anyone with an internet connection - to state-of-the-art experiments on five continents, the project aims at two complementary goals: 1) to provide bits generated directly from human choices, a unique information resource, to physics experiments, and 2) to give the world public the opportunity to contribute in a meaningful way to quantum physics research. We also describe related outreach and educational efforts to spread awareness of quantum physics and its applications.

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