

Charming asymmetry between matter and antimatter

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One of the conditions for creating a matter-dominated Universe is presence of interactions that differentiate between matter and anti-matter. Properties of such interactions can be probed at particle accelerators by studying decay patterns of produced particles. On March 21, one of the CERN's experiments, the LHCb, announced observation of CP-violation in the decays of particles containing charm quark. I discuss theoretical implications of this important discovery, and why it took experimentalists such a long time to make this observation. I will also discuss why it would take even longer for theorists to discern it.

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