

# **The Black Hole Case: The Law Against the End of the World** (book proposal)

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A high-energy particle collider creates a black hole that swallows the Earth. Or the collider unleashes a “killer strangelet” that converts our planet into a hyperdense lump of strange matter small enough to fit inside a football stadium. These are hypothetical but scientifically plausible disaster scenarios that were actually confronted by Europe’s CERN laboratory and the U.S. government’s Brookhaven National Laboratory on Long Island. In their efforts to launch multi-billion-dollar collider programs, physicists had to deal with questions of whether their experiments could run a small but real chance of causing the end of the world.

In my proposed book, I will tell the story of how particle physicists have handled concerns that their experiments risk destroying our planet. It’s a story filled with surprising twists and compelling characters – including the insiders and outsiders engaged with an issue whose importance is only matched by its bizarreness. In diving into all this, my book will seek to throw light on a dilemma crucial to humanity’s future: How do we unravel the secrets of nature without unraveling nature itself? The answer to that question lies with law. After all, if the Earth is destroyed by a science experiment, it will not be because of a failure of science. It will be because of a failure of law. That is because it is science’s job to probe the mysteries of the cosmos, but it is the law’s job to keep humans safe from one another. The book will set out how the law can undertake this duty effectively, fairly, and without suffocating scientific progress.