

Tales from "The Box": A survey of crackpots in physics

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David Dixon, assistant professor of physics at Saddleback College, gave a presentation while he was at California Polytechnic State University titled *Tales from "The Box"*, in which he presents selected contents of *The Box*, an archive of what is charitably describe as "unsolicited materials", but which is in more plain language "stuff sent to us by crackpots." (Warning: Sound quality is terrible.) He describes the various types of crackpots, common themes, behaviors that set off red flags in professional scientists, and how crackpot theories can be used in instruction. In the talk, he excerpts *A Little Bit of Knowledge*, an episode of *This American Life*. He also wonders why crackpots are frequently retired engineers. (For some reason, the video is doubled, so ignore the second half, unless you like watching it a second time, but with the sound off.) Things I learned:

- A subgenre of physics crackpottery is *deriving physical constants from other physical constants in dubious ways*. (Time code 29:00.)
- You need read only the first few pages of any manuscript. That's where the theory is laid out and where you can find the error, assuming the manuscript is comprehensible to begin with. (The rest of the manuscript is just a series of examples of how the theory can be applied to everything under the sun.) One example given was a manuscript that showed that the generally-accepted formula for centripetal acceleration is incorrect by a factor of $2/\pi$. (Time code 37:00.) You would think that an error of this magnitude could be confirmed *by experiment*, but that never occurs to them.
- There are crackpot conferences. (Time code 44:00.) Crackpots tend not to criticize each other's work. And there is a pecking order of crackpot specialties.

During the Q&A, a person from the audience remarked that he worked for a government agency which was required to respond to all communications, even the ones from crackpots. That must really suck.

Bonus reading: How does a layperson grab the attention of research scientists (without looking like a crazy person).

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