

To: jeevacation@gmail.com[jeevacation@gmail.com]
Cc: [REDACTED]
From: [REDACTED]
Sent: Thur 9/10/2009 2:30:46 PM
Subject: Olaf Dreyer

Dear Jeffrey,

It was great talking with you the other day.
As per your request, I asked Olaf Dreyer to write a paragraph about his work and requesting funding. I had mentioned the figure of \$50K, but it turns out that due to intricacies of the US-Germany tax treaty, he needs \$70K for a year at MIT (that is still a discount as I have managed to get MIT to agree not to charge overhead -- the ordinary cost of a postdoc is ca. \$130K per annum, if you can believe it!).

I would like to reiterate that Dr. Dreyer is a particularly brilliant and unconventional scientist who is doing remarkable work. He does not mention it in this letter, but his theory also supplies a radical alternative to Alan Guth's inflationary universe paradigm. If it works out, as it does so far, this alternative theory could fundamentally change our vision of the universe. I recommend Dr. Dreyer to you without reservation.

Yours,
Seth

Seth Lloyd
Director, WM Keck Center for Extreme Quantum Information Theory (xQIT)
MIT

Dear Mr. Epstein,

I would like to request one year of support for my research on novel quantum theories of gravity. The starting point for my approach is a re-evaluation of how matter and geometry relate to each other. We are accustomed to thinking of the geometry of space and time as the stage on which matter acts. Einstein's theory of general relativity made this stage dynamic -- geometry warps and bounces as matter moves around on it -- but he kept the fundamental conceptual split between matter and geometry. In my approach I do away with this split. In this novel theory, our world resembles a pool of water: geometry corresponds to the surface of the pool, and the fundamental particles are ripples on this surface. The split between matter and geometry disappears, and a number of thorny problems that plague modern physics disappear along with it, most notably the cosmological constant problem which is traditionally regarded as the worst prediction in science -- wrong by 120 orders of magnitude. Over the last two years, I have distilled the mathematical issues involved in this 'liquid' approach to the interaction of gravity with matter well enough that another year of work should decide whether my approach gives a viable theory of quantum gravity or not. Accordingly, I am requesting a grant of \$70K to support one year of further research at MIT.

Thank you for considering my request.

Yours,

Dr. Olaf Dreyer
Department of Physics

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MIT

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