



# Hannes Lutz Roberts

**Graduate Institution:** University of California - Berkeley

**Graduate Discipline:** High Energy Physics

**Hometown:** Chicago, IL

**Relevant SC Research:** High Energy Physics

## Research Interest:

I am interested in physics at the LHC, studying the first few seconds after the big bang and cosmology. In addition, I have a recent interest in atomic physics such as atom interferometry. Those don't need to have a large overlap, I am for example interested in measuring GR using atom interferometry and in general earth-based tests and applications of quantum mechanics / GR. Precision measurements can tell us a lot about fundamental laws but they also have practical applications. For example, the tides can be very well measured using interferometry or the

movement of tectonic plates (even people walking into the room distort the gravitational field at a measurable level).

In addition, I have a wide ranging interest in science in general. Fields include biology, medicine and energy research. I am fascinated by the brain and want to understand it someday. Of course, I want to be the one to solve the global energy shortage in a renewable and cheap way.

## About Me:

Career goal: do scientific research either at a university or national lab or in

industry. If possible, it should be related to practical applications in some way. Recent research directions include atom interferometry. Possible future interests include energy research and biology/medicine.

Achievements: 7 papers. 3 in particle physics, 1 in condensed matter physics, 3 in nuclear physics

Other achievements: Studying for PhD at Berkeley, CA. Won numerous awards and fellowships in the past. Previously studied at UChicago for 3 years and Cambridge, UK, for a year. Born in Rostock, Germany (north of Berlin).



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