

Conference on the history of quantum physics, 2-6 July 2007, Berlin

In honor of Max Planck on the sixtieth anniversary of his passing, the Max Planck Society is sponsoring a conference on the history of quantum physics, to be held July 2-6, 2007 at the Max Planck Institute for the History of Science in Berlin. This conference will be the first in a new series of conferences devoted to the history of quantum physics, to be organized by member institutions of the recently established international project on the history and foundations of quantum physics (<http://quantum-history.mpiwg-berlin.mpg.de>).

The conference will focus on three main areas:

The old quantum theory: Its emergence of an array of seemingly unrelated problems in diverse areas such as statistical physics, radiation theory, and spectroscopy; how it was applied to an increasing number of problems; and how the physics community came to recognize its limitations.

The genesis of modern quantum mechanics in the period around 1925, its conceptual development, the interplay with experiment, its socio-cultural and institutional context, as well as the debates about the different mathematical formulations of the theory (matrix and wave mechanics, transformation theory) and their physical interpretation (statistical interpretation, uncertainty principle).

The acceptance of quantum mechanics as a new basis for physics (atomic, molecular, nuclear, and solid-state) and parts of chemistry; the elaboration of its mathematical formalism; the establishment of the dominant Copenhagen interpretation and the emergence of critical responses; and subsequent developments up to the present, including the ability to produce and control phenomena that until recently existed only as theoretical speculation.

The organizing committee invites proposals for papers that address these areas from various standpoints, including but not limited to: the conceptual and theoretical development of quantum physics, its experimental practice, and its institutional, philosophical and cultural context. Please send an abstract of up to 500 words by February 1, 2007, to Christoph Lehner, lehner@mpiwg-berlin.mpg.de. There will be a small number of stipends (for travel and cost of living) available for especially interesting contributions. Please indicate on your submission if you want to apply for a stipend.

Michel Janssen, University of Minnesota

Christoph Lehner, Max Planck Institute for the History of Science

Jürgen Renn, Max Planck Institute for the History of Science

Robert Rynasiewicz, Johns Hopkins University