

Plenary Talk PLV IX Fri 9:00 HS 1+2
Building the Cathedral of Quantum Mechanics — ●MICHEL
JANSSEN — University of Minnesota, Minneapolis, MN, USA

The upheaval in quantum theory in the mid-1920s is often seen as a paradigmatic example of Kuhn’s account of scientific revolutions, in which new buildings are erected on the ruins of the old ones, brought down by an accumulation of anomalies. In our book *Constructing Quantum Mechanics*, Anthony Duncan and I use a different building

metaphor to characterize the emergence of quantum mechanics. As suggested by the subtitles of the two volumes of our book, *The Scaffold: 1900-1923* and *The Arch: 1923-1927*, we see the architects of the new quantum mechanics using parts of the old quantum theory as scaffolds to build the arch of the new one. In this talk, after sketching the underlying alternative to Kuhn’s account of scientific revolutions in general, I will give an overview, as non-technical as possible, of the genesis of quantum mechanics in the period 1900-1927.