

# **The Making of Jean Perrin's Brownian Motion Experiments and of early 20th Century French Physical Science**

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Abstract:

Perrin's Brownian experiments of 1908-1911 taking up Albert Einstein's publications on Brownian motion occupy an important place in the landscape of early twentieth century French physical science. A careful examination of the physical chemist's laboratory notebooks reveals the social networks and the experimental and theoretical cultures that came together in the making of this work, notably his close interactions with physicist Paul

Langevin and mathematician Emile Borel. Perrin's experiments subsequently found a strong echo among scientists and the public, enhanced by his own popularization efforts and the award of the Physics nobel prize in 1926. The talk will explore the ways in which his work contributed to shape French physical science, including quantum physics, both in scientific and institutional terms, into the 1930s.