Overview Lecture Feb 21st

Louis Bachelier

Albert Einstein

Marian Smoluchowski

$$\frac{\partial P}{\partial t} = D \frac{\partial^2 P}{\partial x^2}$$

Equation for the Probability Density

Max Planck

Adriaan Fokker

Jean Baptiste Perrin — experiment on Brownian motion

Paul Langevin — STOCHASTIC Differential Equation (motion influenced by noise)

$$m\ddot{x} = -\gamma \dot{x} + \xi(t)$$

Lord Raleigh — Random Walks

Karl Pearson

J. B. Johnson, H. Nyquist — experiments on noise in electrical circuits and theory

$P(x, v)$

Ornstein-Uhlenbeck

Kiyoshi Itô ← Joseph Doob ← Norbert Wiener

Ruslan Stratonovich