



Quantiles: Trajectories of Atoms in the Interpretations of Everett and Broglie-Bohm

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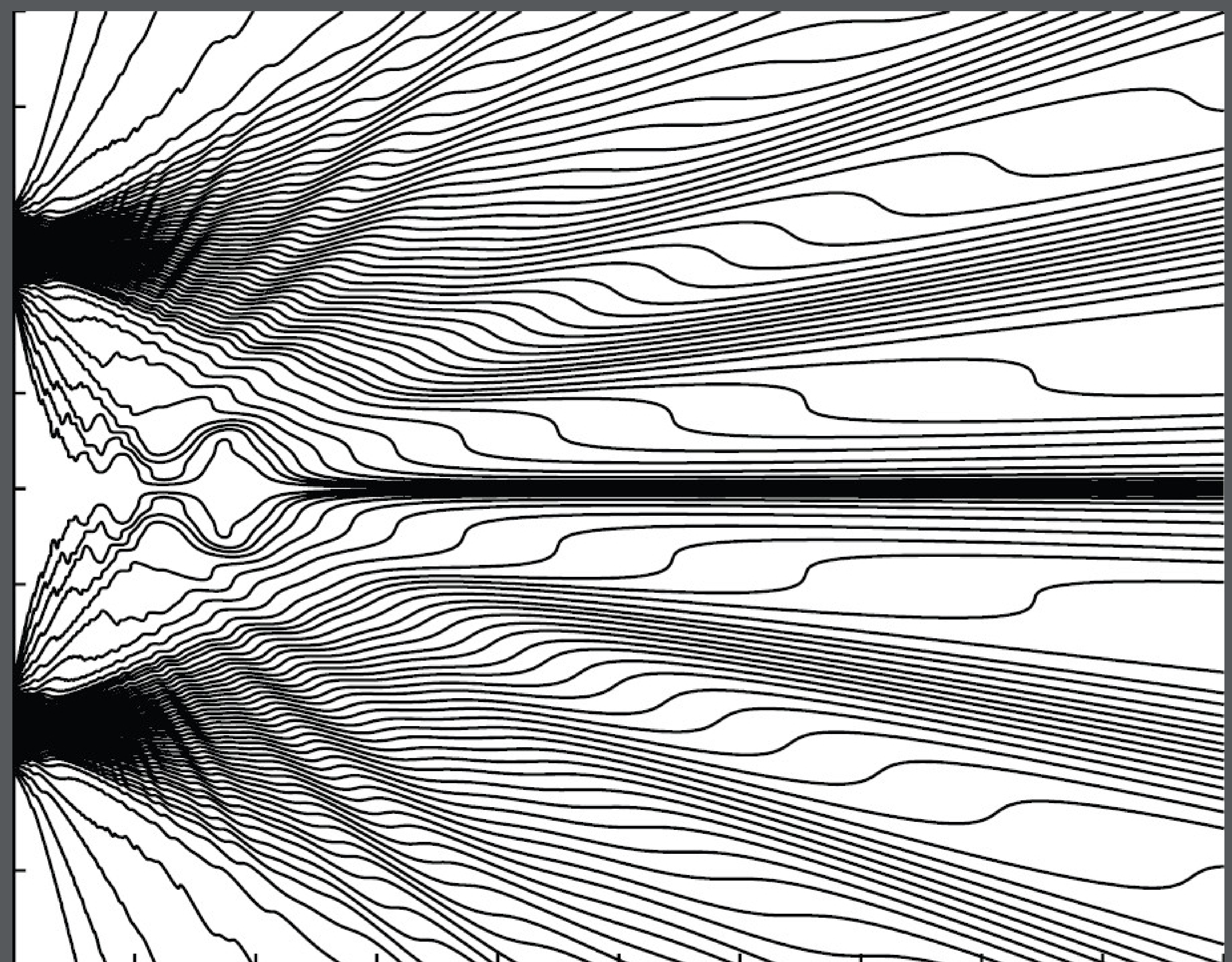
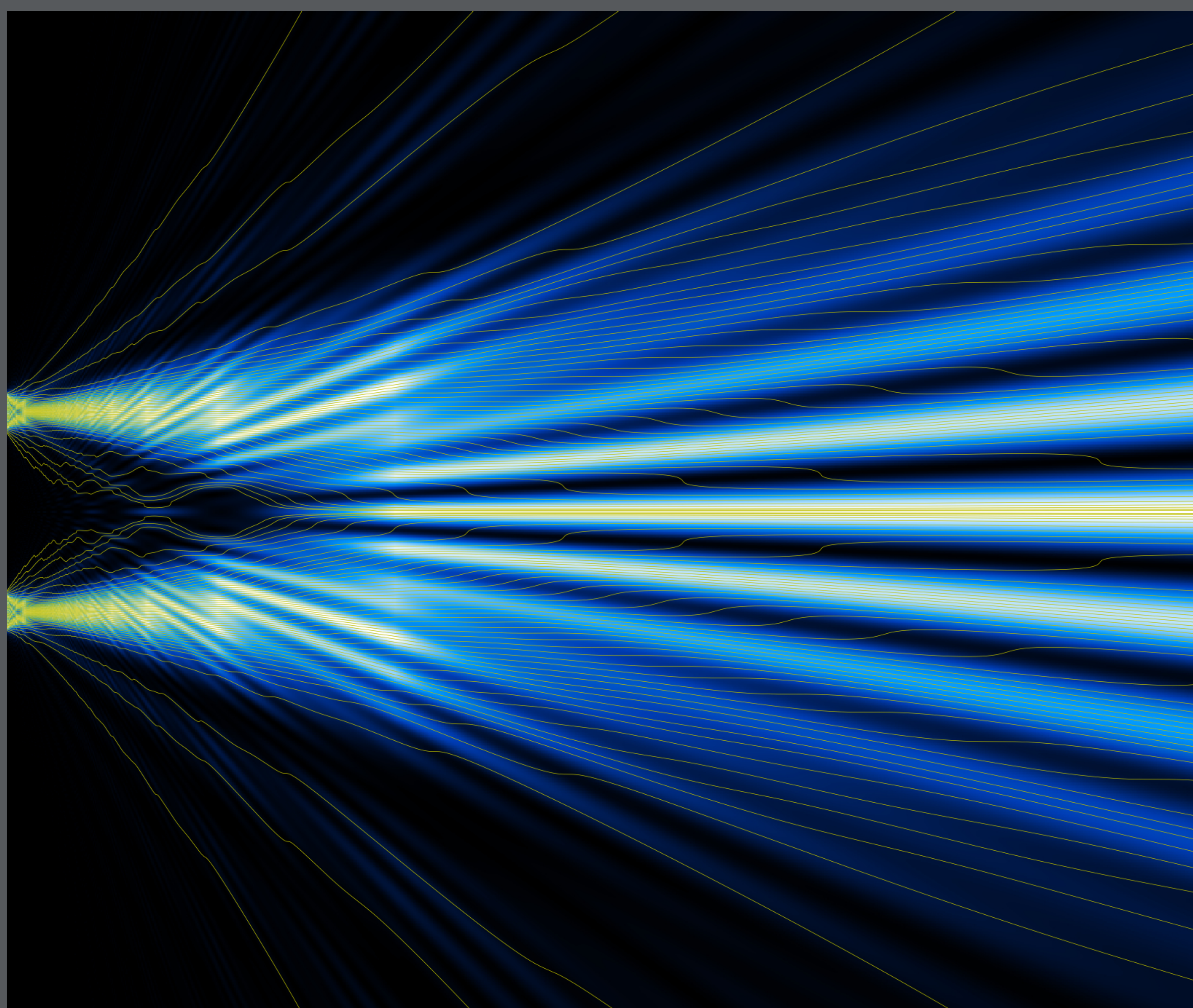
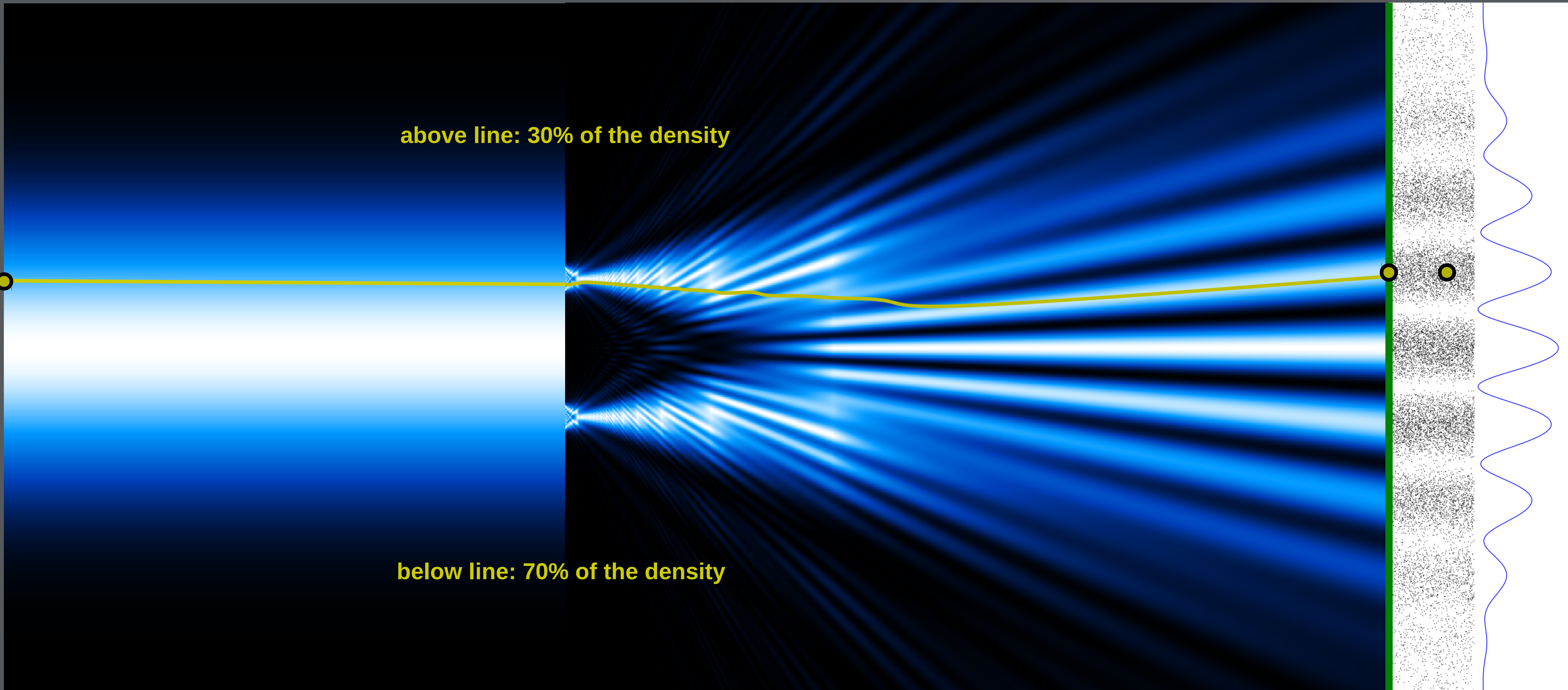
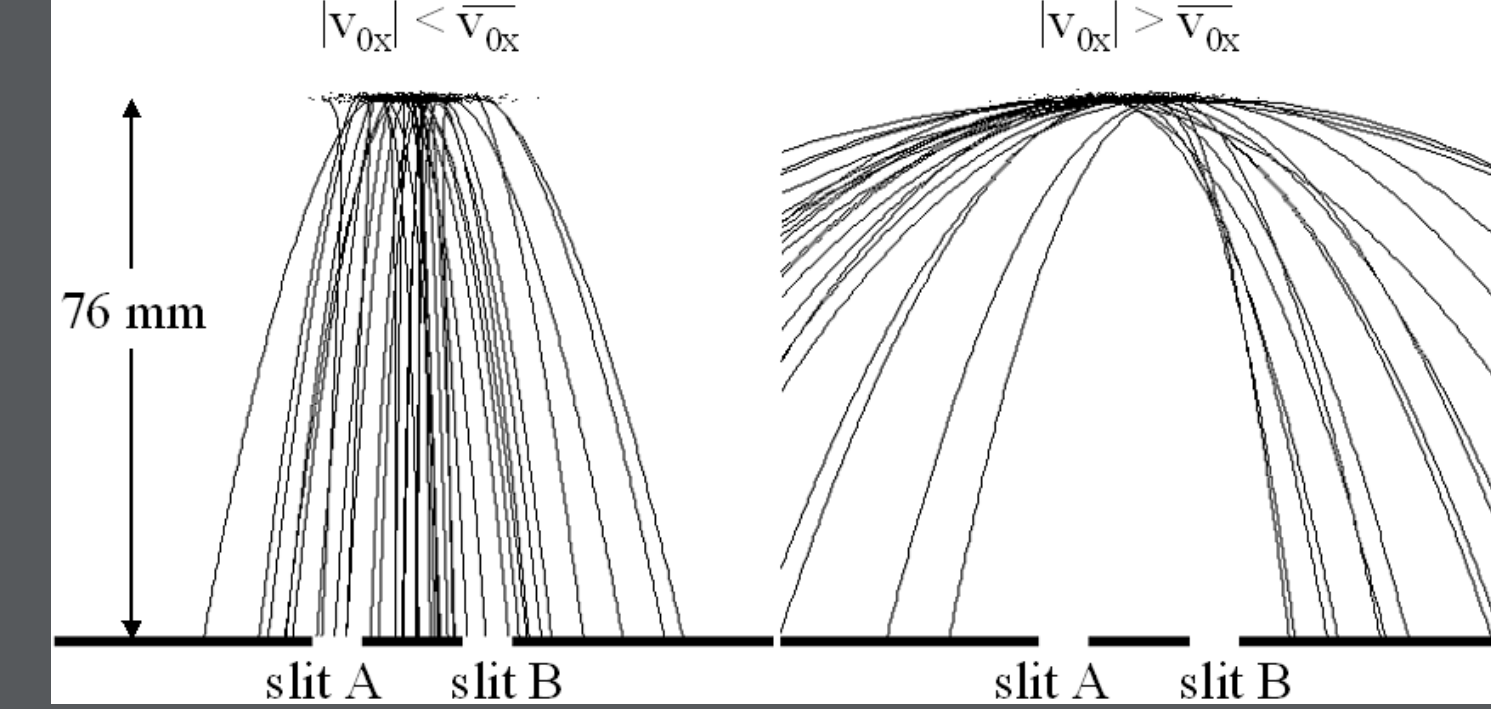
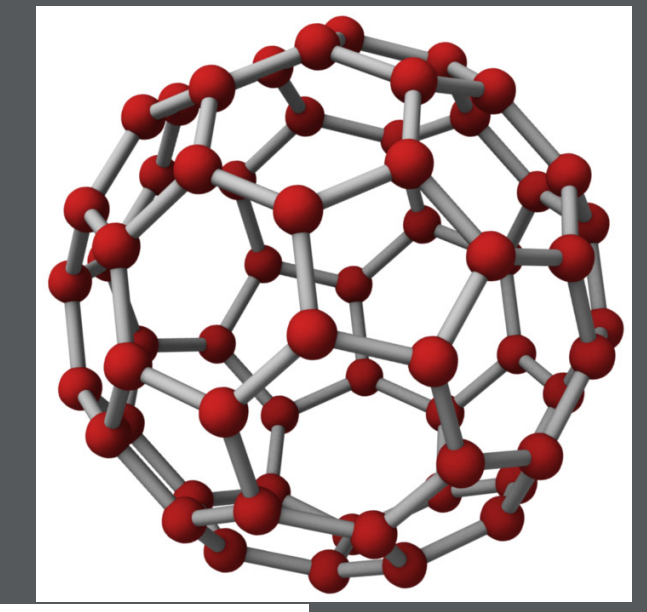
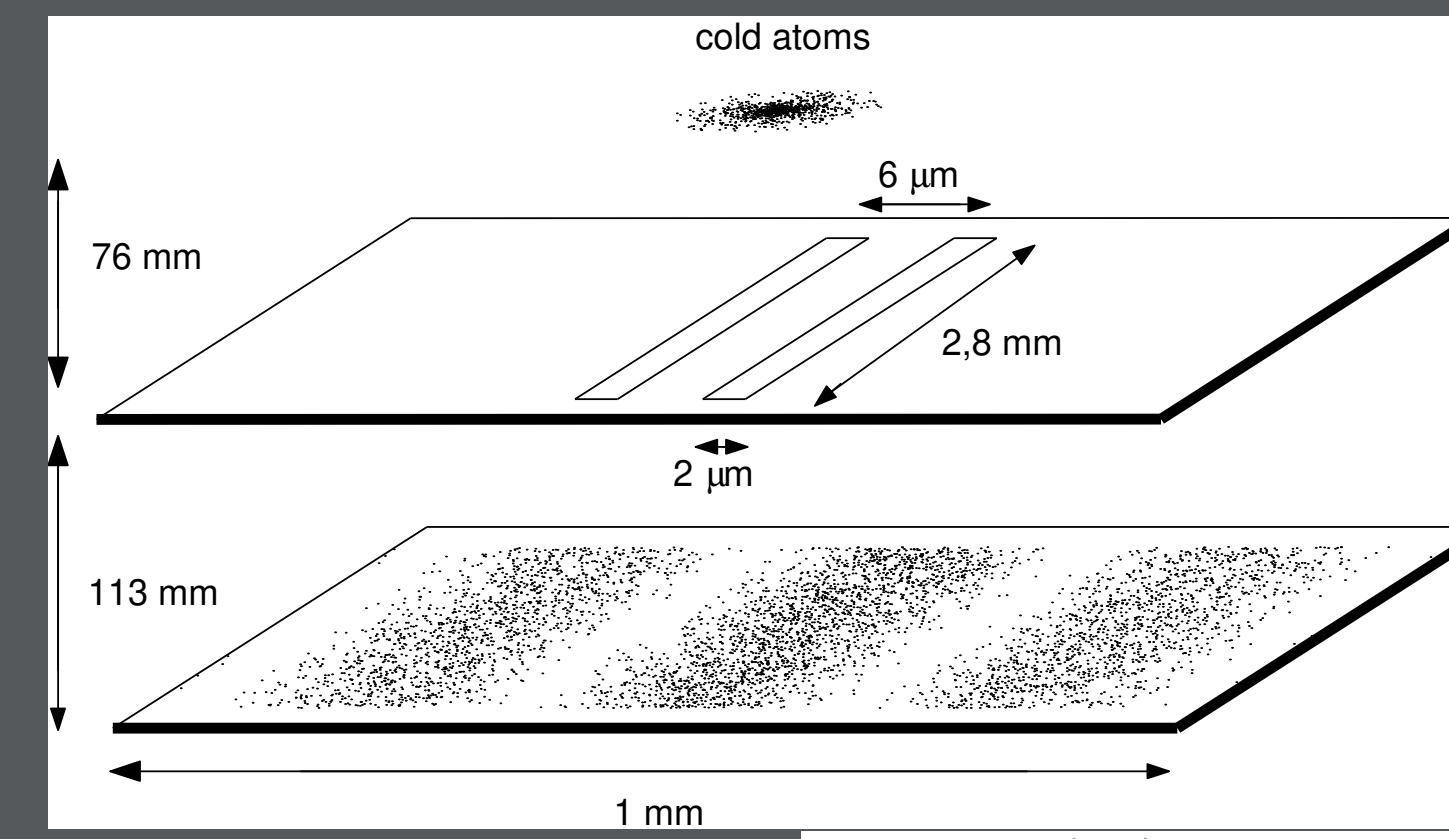
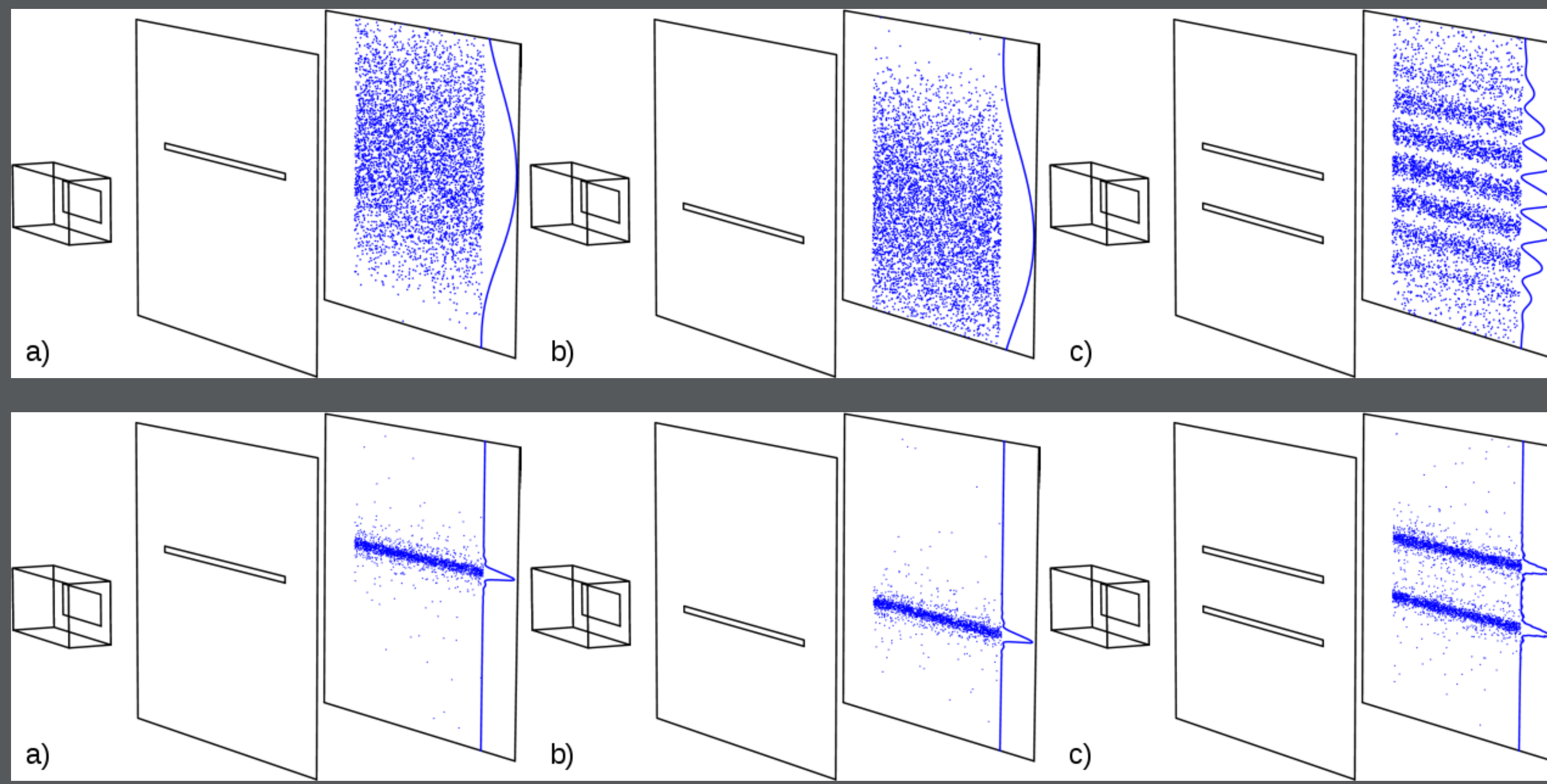
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⇒ Replace the randomness of position measurement by randomness of position preparation

Quantiles = de Broglie-Bohm Trajectories

$$v(x, t) = \frac{\nabla S(x, t)}{m} \quad \text{with} \quad \Psi(x, t) = \sqrt{\rho(x, t)} e^{i \frac{S(x, t)}{\hbar}}$$

The wave function guides the particle.

Quantiles = Branches of Everett interpretation

Each trajectory = One world of the many-worlds interpretation