

$$\int_{\mathcal{H}_s} \left| v \frac{\partial \psi(X)}{\partial x} \right| + \frac{1}{m} \left| \Phi'(x) \theta^R(x) \frac{\partial \psi(X)}{\partial v} \right| + \frac{\gamma}{m} \left| v \frac{\partial \psi(X)}{\partial v} \right| + \frac{\gamma}{m^2} \left| \frac{\partial^2 \psi(X)}{\partial v^2} \right| \mu(dX)$$