

## Frictional effect and scaling properties in domain wall networks

*Monday, 20 April 2026 14:20 (15 minutes)*

Domain walls arise in various physical contexts, such as early universe phase transitions. Their interaction with the surrounding plasma determines their motion and the scaling behavior of the networks. We study the friction exerted by a thermal plasma on domain walls in the thin-wall regime using the ballistic approximation. The resulting friction, dependent on wall velocity and temperature, is incorporated into the wall's equations of motion to analyze its effect on network evolution. As an application, we explore implications for dark matter models and the associated gravitational wave signals.

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