24th Australian Institute of Physics Congress



Contribution ID: 451 Type: Poster

Critical Velocity and Vortex Nucleation for Superfluid Flow Past a Finite Obstacle

Tuesday 13 December 2022 18:45 (15 minutes)

We characterise the emergence of vortex pairs in stationary solutions of superfluid flow past a finite obstacle, both analytically and numerically. We demonstrate how this leads to the breakdown of superfluidity at the critical velocity.

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Session Classification: Poster session

Track Classification: AIP Congress: AIP: Atomic and Molecular Physics