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Abstract:	We study vortex solutions in a holographic model of Herzog, Hartnoll, and Horowitz, with a vanishing external magnetic field on the boundary, as is appropriate for vortices in a superfluid. We study the relevant length scales related to the vortices and how the charge density inside the vortex core behaves as a function of temperature or chemical potential. We extract a critical superfluid velocity from the vortex solutions, study how it behaves as a function of the temperature, and compare it to earlier studies and to the Landau criterion. We also comment on the possibility of a Berezinskii-Kosterlitz-Thouless vortex confinement-deconfinement transition.
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