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Contact line induced instabilities for thin fluid films[1] TE-SHENG LIN, LOU KONDIC, New Jersey Institute of Technology — We study contact line induced instabilities for thin film of complete and partially wetting fluids spreading down an inclined plane with inclination angle ranging from 0 to pi. It is found that a contact line may lead to free surface instability without any additional perturbations. We investigate the effect of both inclination angle and of contact angle on surface and transverse (fingering) instabilities, as well as on dewetting process.

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