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Stability of a Falling Liquid Film ZHI LIANG WANG, S.P. LIN, MAE Dept. Clarkson University — Absolute instability was not found in a falling viscous liquid layer over a plane by Joo and Davis (1992). They assumed that the wave length of disturbance is much longer than the layer thickness. Their results are valid for the case of a vertical plane in a limited parameter range associated with gravity and surface tension. Their assumption and limitations are removed in this investigation. No absolute instability is found in a liquid layer. The instability is convective. The physical mechanism of convective instability is elucidated by comparing each terms in the energy budget.

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