

Abstract Submitted  
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**Stability and transition in rotating plane Couette flow**<sup>1</sup> CONOR DALY, NIGEL PEAKE, University of Cambridge — It is well known that the addition of spanwise Coriolis rotation to plane Couette shear flow causes the laminar solution to destabilise. Linear stability theory predicts a secondary solution of steady, streamwise oriented vortices, with numerical and experimental evidence in support of the prediction. We compute the linear stability of the secondary solutions, and find that the characteristics of the least stable mode depend on the non-dimensionalised rotation parameter. We discuss the transition phenomena arising from the different secondary instabilities, which lead to a range of steady and unsteady tertiary states.

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