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Angular Momentum Transport in the Solar Tachocline STEVEN TOBIAS, University of Leeds — The eleven year solar activity cycle is believed to be generated by a dynamo. The solar tachocline is a region of strong differential rotation located at the base of the solar convection zone, which is believed to play a crucial role in the operation of this dynamo. The dynamics of the shear layer is however poorly understood. Indeed there is no consistent theory available for the existence of such a thin tachocline. The problem of tachocline existence is inherently linked to that of instabilities and angular momentum transport in stably stratified magnetised collisional plasmas. In this talk I shall review the theory for this and discuss some ideas for future progress in this area.

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