Surfactant spreading on thin viscous films ANGELICA AESSOPOS, MIT, JOSE BICO, ESPCI, ANETTE HOSOI, MIT — A surfactant drop spreading on a thin viscous film may be accompanied by a fingering instability. The spreading is driven by Marangoni stresses and resisted by viscous dissipation in the sublayer. We present experimental results in a variety of regimes showing how the film thickness and viscosity affect the characteristics of the spreading droplet. Spreading data at short time scales, recorded with a high speed camera, are analysed as well as steady state phenomena. A number of new scaling laws are observed.