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Two moving boundary problems describing bacterial biofilm growth

Biofilms are slimy colonies of bacteria growing on solid-fluid interfaces. Their natural resistance to anti-microbial agents causes considerable concern in medicine and industry. In this talk we discuss a simple model describing biofilms as a growing viscous fluid. Adopting a thin-film reduction, two limits of interest arise from the analysis based on the strength of the interactive forces between the bacteria and substratum. Both limits lead to moving boundary problems and key results from their analysis will be presented.