

**Symmetry and numerical analysis of the flow of a thin non-Newtonian  
fluid on an inclined plane**

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This talk considers the evolution equation, its symmetries, reductions to Ordinary Differential Equations and the numerical study of the development of the flow of a thin non-Newtonian liquid film on an inclined plane and investigates the effect of gravity, surface tension and Marangoni on the film height. Examples of non-Newtonian fluids are polymer solutions, soap, blood and paint.