



Technion-Israel Institute of Technology
Computer Science Department
Center for Graphics and Geometric Computing



CGGC Seminar

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Real-time Viscous Thin Films

We propose a novel discrete scheme for simulating viscous thin films at real-time frame rates. Our scheme is based on a new formulation of the gradient flow approach, that leads to a discretization based on local stencils that are easily computable on the GPU. Our approach has physical fidelity, as the total mass is guaranteed to be preserved, an appropriate discrete energy is controlled, and the film height is guaranteed to be non-negative at all times. In addition, and unlike all existing methods for thin films simulation, it is fast enough to allow real time interaction with the flow, for designing initial conditions and controlling the forces during the simulation.

This work is jointly done with Prof. Miri Ben-Chen.

The lecture will be held on Thursday, 22.11.2018, at 09:00, Taub 401

הזמנה זו מהווה אישור כניסה עם רכב לטכניון