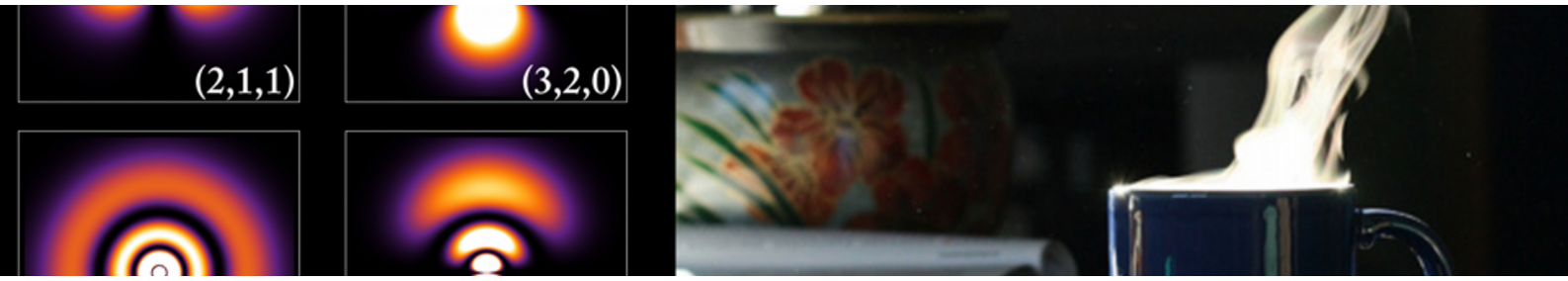
Charlas abiertas IEMath-GR
& Coloquio "José Mendoza Ríos"



Schrödinger's Smoke

Ulrich Pinkall

TU Berlin

Viernes 16 de febrero de 2018, 12:30

Sala de Conferencias, IEMath-GR

Fluid simulations in Computer Graphics struggle with the problem that on the one hand in most situations of interest the real flow is dominated by very thin vortex sheets and filaments, which also are responsible for much of the fine detail of the flow. On the other hand, feasible numerical grid resolutions are unable to resolve these thin structures and result in a substantial amount of numerical viscosity. Many rather artificial remedies have been proposed for this problem. In this talk we propose to use the equations usually reserved for quantum fluids also for the simulation of ordinary fluids. We demonstrate that this can help to overcome some of the mentioned problems. Moreover, the resulting numerical algorithm is extremely simple and efficient.

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