



Berlin
Mathematical
School

BMS Friday Colloquium

Friday 19 October 2012 at 14:15

Tea & Cookies starting at 13:00

BMS Loft, Urania, An der Urania 17, 10787 Berlin

Ulrich Pinkall

(TU Berlin)

Decomposing Smoke into Smoke Rings

We present an algorithm to approximate the velocity field of an isolated vortex in an infinite ideal fluid ("smoke") by the field generated by a finite number of closed vortex filaments ("smoke rings"). These vortex filaments in turn can be used to efficiently compute the time evolution of the flow. We indicate how the same ideas also can be applied in the context of approximating smooth surfaces by polyhedra.

Ulrich Pinkall is professor of mathematics at the Technische Universität Berlin, specializing in differential geometry and computer graphics. From 1992 to 2003 he was head of SFB 288; he has also been a guest researcher at the Max Planck Institute for Mathematics and a consultant for DreamWorks Studios. He is a member of the new SFB/TR 109 "Discretization in Geometry and Dynamics", a joint project between TU Berlin and TU München.

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