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## Art of fluid animation

In this talk, I present my work on fluid dynamics for the entertainment industry. The talk will introduce basic concepts of fluids and a brief history of computational fluid dynamics. Subsequently I will talk about my contributions of applying computational fluid dynamics to the entertainment industry like games and movies. I will also discuss our implementation of this technology into our MAYA animation software. In 2008, I received a Technical Achievement Award from the Academy of Motion Picture Arts and Sciences ("tech Oscar") for this work. I will also mention my work on bringing fluid dynamics to mobile devices like the Pocket PC in 2001 and the iPhone in 2008. In 2010, we released FluidFX and MotionFX for iOS and MacOS. The talk will feature many live demonstrations and animations. The talk is basically a condensed version of my book "The Art of Fluid Animation".

### Biography

Jos Stam born in the Netherlands and educated in Geneva, where he received dual bachelor's degrees in computer science and pure mathematics. In 1989, he completed his Master's and PhD degrees in computer science. After that he pursued postdoctoral studies as an ERCIM fellow at INRIA in France and at VTT in Finland. In 1997, he joined the Alias Seattle office as a researcher and stayed there until 2003 to relocate to Alias' main office in Toronto. He is now employed with Autodesk as a Senior Research Scientist as part of Autodesk's acquisition of Alias in 2006. His research spans several areas of computer graphics: natural phenomena, physics-based simulation, rendering and surface modeling, especially subdivision surfaces. His latest creation is a unified dynamics solver called Nucleus, which is embedded in MAYA and has been used in many movies to create special effects. He has published papers in all these areas in journals and at conferences, most notably at the annual SIGGRAPH conference. In 2005, he was awarded one of the most prestigious awards in computer graphics: the SIGGRAPH Computer Graphics Achievement Award. He won two Technical Achievement Awards from the Academy of Motion Picture Arts and Sciences: in 2005 for his work on subdivision surfaces and in 2007 for his work on fluid dynamics.

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