

# Symposium on Mathematics and Science in Digital Media, Technology and Entertainment

**Date:** Sunday, 1 July 2007

**Time:** 9:00am to 5:45pm (Registration starts at 8:30am)

**Venue:** Raffles City Convention Centre  
Stamford Ballroom, Level 4

**Admission is Free.**

Please register online at <http://www.ims.nus.edu.sg/activities/msdm07/register.php>  
(Register by 25 June on a first come first served basis)

At the 2007 Oscars, two of the three movies nominated for the special effects Academy Award --- *Poseidon* and *Pirates of the Caribbean: Dead Man's Chest* --- both made by Industrial Light & Magic (ILM), used intensive numerical simulation.

Advances in computer technology have made it possible to apply some of the most sophisticated developments in mathematics and science for the design and implementation of fast algorithms for the simulation of complex physical phenomena and biological objects with a level of realism that was not thought possible until recently.

This Symposium aims to introduce to the general public, especially students contemplating a career related to the exciting new field of interactive digital media (IDM), the technical knowledge and training in mathematics, science and computer science that is needed to do state-of-the art research and development in the area. The speakers, who are leading experts from academia and industry, will aim their lectures at the appropriate level, with video and other tools as illustrations. There will also be a discussion forum on IDM in the afternoon with the speakers and three other mathematicians as discussants. The speakers and forum discussants are:

**Emmanuel Candes**

California  
Institute of  
Technology



Title of Talk:  
Compressive Sensing

**Stéphane Mallat**

Ecole  
Polytechnique  
and  
Let it Wave



Title of Talk:  
A Start-Up from Mathematics for  
Television

**Douglas Roble**

Digital Domain



Title of Talk:  
The Mathematics of Entertainment

**Peter Schröder**

California  
Institute of  
Technology



Title of Talk:  
Meshes for Geometric Modeling and  
Animation

**Carl de Boor**

University of  
Wisconsin,  
Madison



Discussant

**Shen Zuowei**

National  
University of  
Singapore



Discussant

**Tan Eng Chye**

National  
University of  
Singapore



Forum Chair

Organized by



Department of Mathematics, NUS

and



Institute for Mathematical Sciences, NUS

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For more information, please visit <http://www.ims.nus.edu.sg/activities/msdm07/>