



# Mathematics meets Computer Vision ... and Visual Arts



## BIRS 2006 Workshop on Mathematical Methods in Computer Vision

Oct 1-4 2006

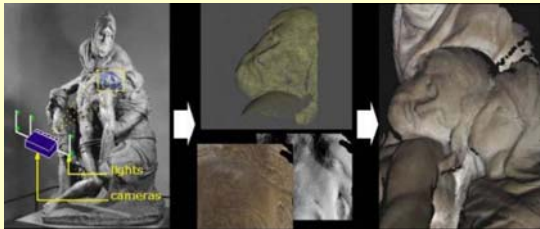
<http://www.cs.ualberta.ca/~vis/vision06>

The workshop participants will link PIMS/BIRS math centre with with the creative visual arts at the Banff centre's New Media Institute (BNMI). Workshop participants will pair up with artists, modelers and animators to explore and create artistic use for the mathematical methods.

### Schedule for the interaction sessions

#### Plenary talks

**Sun 7-8:30PM Max Bell 251** Talks of interest to a wide Banff Centre audience

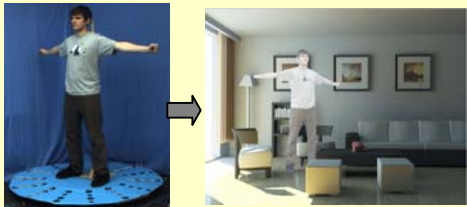


Gabriel Taubin, Brown Univ.  
*"The digital capture and virtual exhibit of Michelangelo's Pieta"*

Rick Szeliski, Microsoft  
*"Photo-tourism Exploring photo in 3D"*



**Mon 4 - 6PM Max Bell 251** Mainly of interest to New Media people and video producers



Neil Birkbeck, U of Alberta  
*"Capture of 3D models from 2D photos using variational shape and reflectance estimation"*

Jim Rehg: Georgia Tech  
*"Projector-Guided painting"*



Adrian Broadhurst, Vicon  
*"Motion capture, state of the art and new developments"*

#### Demos, Posters, Lab tours

**Mon 7 - 9PM Max Bell 1st floor** Demos related to interaction talks:

Geert Caenen - An Internet application for 3D modeling from 2D photos;  
Noah Snaverly - Photo-tourism; Adam Rachmielowski/Neil Birkbeck - 3D capture from 2D photos; Matt Flagg/Jim Rehg - Projector guided painting; Adrian Broadhurst - Motion capture;

**Tue 7PM - 8:30PM** Tour of Banff New Media Institute including their arts studios, multimedia room, immersive visualization "cave" etc.

**Thu 9AM - 12 AM** Results of interactions

Artists/modelers will present what they produced by combining computer vision captured models, tracked video etc in their creative arts projects.



Geert Caenen KU Leuven