## Interactive Digital Multimedia IGERT Tutorial Announcement Elements of Geometric Computer Vision

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<b>June 7, 2006</b> ESB 1001 2-5 pm	<ul> <li>1. Basic properties of vector and matrices/ projective plane</li> <li>2. Pinhole camera geometry         <ul> <li>Camera anatomy</li> <li>Camera calibration</li> </ul> </li> </ul>
<b>June 13</b> ESB 1001 1-5 pm	<ul> <li>3. Two view geometry <ul> <li>Epipolar geometry</li> <li>Triangulation</li> <li>Rectification</li> <li>Planes and collineations</li> <li>3D Reconstruction</li> </ul> </li> </ul>
<b>June 14</b> ESB 1001 1-5 pm	<ul> <li>4. Multiple view geometry <ul> <li>Trifocal geometry</li> <li>3D Reconstruction</li> <li>Multifocal constraints</li> </ul> </li> <li>5. Autocalibration <ul> <li>Direct method</li> <li>Stratification</li> </ul> </li> </ul>
<b>June 15</b> ESB 1001 1-5 pm	<ul> <li>6. Getting Practical <ul> <li>Practical calibration</li> <li>Pre-conditioning</li> <li>Algebraic vs geometric errors</li> <li>Robust statistics</li> </ul> </li> </ul>

Andrea Fusiello received his Laurea (Master) degree in Computer Science from the University of Udine in 1994. He received the Dottorato di Ricerca (PhD) in Computer Engineering from the University of Trieste in 1999. He was a Visiting Research Fellow at Heriot-Watt University, Edinburgh in 1999. >From 2001 to 2004 he served as a Ricercatore (Assistant Professor) at the Department of Computer Science, University of Verona. He is now Professore Associato (Associate Professor) at the same department, where he teaches Computer Vision and Computer Graphics. He has been advisor of more than 20 master students and 3 PhD students.

His research is mainly focused on Computer Vision (image analysis, model acquisition), with applications to Human-Computer Interaction (cross-modality) and Computer Graphics (image based rendering, augmented reality). He published more than 50 papers in the field. Andrea Fusiello is a member of the IAPR, EUROGRAPHICS and IEEE CS.

If you are interested in attending this tutorial, please e-mail Tim Robinson, tim@ece.ucsb.edu, by JUNE 5, 2006.