UNIVERSITÀ DEGLI STUDI DI PALERMO

Dipartimento di Ingegneria Chimica, Gestionale, Informatica, Meccanica

Seminario

PDE'S AND ACTIVE CONTOURS IN IMAGE PROCESSING AND COMPUTER VISION

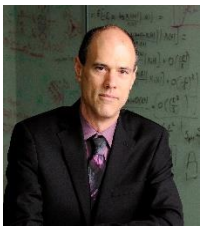
Following the early popularity of the original "Snakes" algorithm by Kass, Witkin, and Terzopoulos in the '90s, various forms of active contours have become a major forefront of research in image processing and computer vision. This talk will offer a high level overview of how PDE°s and active contours can be exploited in computer vision, with a special emphasis on geometric models derived from the Calculus of Variations. Time permitting, the overview will be extended to incorporate a more recent class of active contour models based on Sobolev gradients. The talk will include several software demos illustrating the application of these techniques on a variety of problems ranging from medical image segmentation, multiview stereo 3D surface reconstruction, image registration, and visual tracking.

VENERDÌ 18 MARZO 2016 – ORE 15.00-16.00
AULA RUBINO – VIALE DELLE SCIENZE – EDIFICIO 8

scuola politecnica
agroalimentare
architettura
economia
ingegneria

PROF. ANTHONY YEZZI

GEORGIA INSTITUTE OF TECHNOLOGY (USA).
VISITING FULBRIGHT SCHOLAR @ UNIVERSITY OF PALERMO



Prof. Anthony Yezzi holds the position of Julian Hightower Chair Professor within the School of Electrical and Comptuer Engineering at Georgia Institute of Technology where he directs the Laboratory for Computational Computer Vision. He has over twenty years of research experience in shape optimization via geometric partial differential equations. He obtained his Ph.D. in Electrical Engineering in December 1997 from the University of Minnesota with a minor in mathematics. After completing a postdoctoral research appointment at Massachusetts Institute of Technology, he joined the faculty at Georgia Tech in August 1999. Dr. Yezzi's research lies primarily within the fields of image processing and computer vision with a particular emphasis on medical imaging and 3D surface reconstruction. He has consulted for a number of companies including GE, 3M, MZA, Philips, Picker, Corghi, CHOA, and VTI. His work spans a wide range of image processing and vision problems including image denoising, edge-detection, segmentation, shape analysis, multi-frame stereo reconstruction, visual tracking, and registration. Some central themes of his research include curve and surface evolution, differential geometry, partial differential equations, and shape optimization. He is a visiting Fulbright scholar at the University of Palermo, DICGIM.