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Fourth Workshop on Non-Rigid Shape Analysis and Deformable Image Alignment (NORDIA'11)

24 June 2011, Colorado Springs, USA

(in conjunction with CVPR'11)

tosca.cs.technion.ac.il/nordia11



Nonrigid and deformable shapes are ubiquitous in the world surrounding us, on all levels from micro to macro. The need to study such shapes and model their behavior arises in a wide spectrum of applications, ranging from medical imaging and augmented reality to design engineering and homeland security. In recent years, problems of nonrigid shape analysis and deformable image alignment have attracted a growing interest in computer vision and pattern recognition communities, which has led to rapid development of the field, where state-of-the-art results from very different sciences - theoretical and numerical geometry, optimization, linear algebra, graph theory, machine learning and computer graphics, to mention a few - are applied to find solutions.

NORDIA 2011 comes following the success of the previous issues of the workshop in 2008, 2009 and 2010. The purpose is to bring together leading researchers dealing with different aspects of nonrigid shape analysis and deformable image alignment in order to promote new interdisciplinary collaborations and expose each side to the most recent results and problems in each field. The purpose is to identify new problems as well as potential solutions. The unique value of the workshop is bringing together people from communities traditionally considered to be working in different areas and rarely meeting in the same conferences.

Topics

- Deformable models
- Shape similarity and recognition
- Large-scale non-rigid shape retrieval
- Partial shape similarity
- Invariant shape descriptors
- Self-similarity and symmetry of nonrigid shapes
- Geometric and topological noise modeling
- Structural shape similarity and correspondence
- 2D/2D, 2D/3D, and 3D/3D alignment and nonrigid correspondence problems
- Inverse problems involving nonrigid shapes
- Synthesis of nonrigid shapes
- Learning-based methods
- Efficient optimization algorithms
- Merging of detection and alignment
- Multimodal alignment and sensor fusion
- Applications

Important dates

Paper submission: 5 March, 2011
Notification of acceptance: 5 April, 2011
Workshop: 24 June, 2011