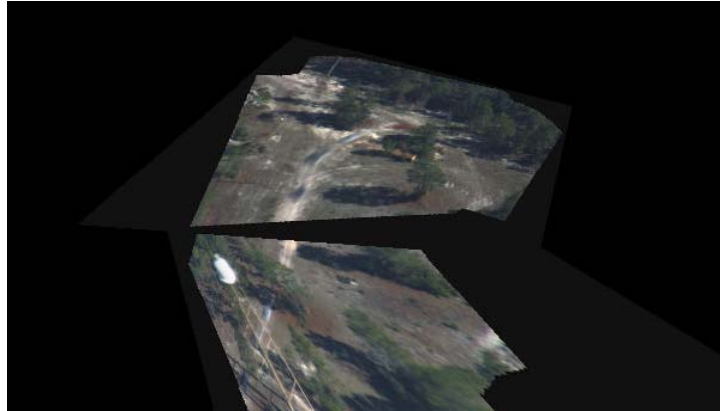


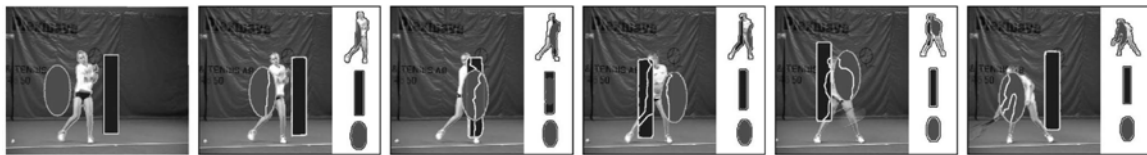
Digital Data Analysis and Understanding

In our age of information, an increasingly large number of digital data sets are collected through an expanding diversity of applications. To make the information useful, data must be understood and analyzed. Not surprisingly, mathematics plays an important role in providing efficient methods for data mining, machine learning, computing, and data analysis.



Object association across multiple non-overlapping cameras (CVPR 2007)

During the past few years, a group of faculty members from mathematics department have worked closely with research groups from electrical engineering and computer sciences in image denoising, object recognition, target tracking, digital signal analysis, and autonomous robotic systems. In these applications, various tools of digital data analysis and machine learning frameworks must be developed.



Tracking (IEEE PAMI 2004)

MS and PhD students will have an opportunity to work with their counterparts in engineering. Internships at companies (for example, SAIC and Lockheed Martin) or local industries are available. The following courses are required for students who want to study in this direction:

Topics in Advanced Calculus

Advanced Linear Algebra

Applied Mathematics I

Approximation Techniques or Scientific Computing

Qualified applicants are needed for research assistant positions. Students interested in research in mathematical methods in image analysis, learning theory, sampling, and data mining are encouraged to **contact Dr. Xin Li at (407)-823-5984 or xli@math.ucf.edu.**