The summer school will involve leaders in computer vision and experts from mathematics, statistics, engineering and computer science who are interested in vision. Computer Vision is a rapidly developing interdisciplinary field with an increasing number of practical applications such as automated cars, visual surveillance, and aids for the visually impaired. Its main goal is the automatic understanding and interpreting of images and image sequences. The school will present the core techniques in Computer Vision, illustrate the large range of visual tasks they can be applied to, and describe the conceptual and theoretical foundations that underlie them. These techniques include filtering, geometry, differential equations, harmonic analysis, probabilistic methods, machine learning, and many more. The school will describe real world applications and discuss interactions with related disciplines such as image processing, machine learning, and biological vision.

Scientific Overview

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Participation

IPAM's Computer Vision Summer School will provide a rare opportunity for researchers in the mathematics, statistics, computer science, and engineering sciences to learn about recent research directions and future challenges in this area. Funding is available to support graduate students and postdoctoral researchers in the early stages of their career, as well as more senior researchers interested in undertaking new research in this area. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications. The application is available online, and is due March 31, 2013.