

Presents the Fall 2012 EECS Seminar Series

**Dr. Slawomir Bak**  
INRIA, Sophia Antipolis

**“Learning to Match Appearances by Correlations in a Covariance Metric Space”**  
Tuesday, September 18, 2012 • 2:00 p.m. • HEC 101

**ABSTRACT**

This talk addresses the problem of appearance matching across disjoint camera views. Significant appearance changes, caused by variations in view angle, illumination and object pose, make the problem challenging. We propose to formulate the appearance matching problem as the task of learning a model that selects the most descriptive features for a specific class of objects. Learning is performed in a covariance metric space using an entropy-driven criterion. Our main idea is that different regions of the object appearance ought to be matched using different strategies to obtain a distinctive representation. The proposed technique has been successfully applied to the person re-identification problem, in which a human appearance has to be matched across non-overlapping cameras. We demonstrate that our approach improves state of the art performance in the context of pedestrian recognition.

**BIOGRAPHY**

Sławomir Bąk is a researcher in the STARS team at INRIA Sophia Antipolis and programmer at Poznań Super-computing and Networking Center (PSNC). He obtained his Bachelor's Degree in 2007 at Poznań University of Technology, Faculty of Computing Science. In 2007 he was a member of the Automated Scheduling Optimisation and Planning (ASAP) research group at University of Nottingham. He obtained his Master degree in 2008 at Poznań University of Technology in GRID computing. He has conducted research in computer vision since 2008 at Sophia Antipolis. In 2012 he obtained his PhD at University of Nice.