



报告人: Bijoy K. Ghosh

时 间: 1月6日 (周一) 下午15:00-16:00

地 点: 电信群楼2-410

邀请人: Lindquist

## Geometric Methods in Optimal Multi-Agent Sensing with Applications to Human Binocular Control

### Abstract:

Riemannian Geometric methods have been applied to optimally control rotatory dynamics and in the last two decades we have witnessed much progress in optimally controlling eye and head rotations. The motivation for such a control problem is to ensure that the eye and the head points towards a moving target in the visual space. In this talk we extend the control problem to simultaneously control a coupled team of multiple rotating sensors. Application of the proposed formulation to optimally control human eye pair in the binocular vision setup is new.

### Biography:

**Bijoy** received his Ph.D. degree from the Division of Applied Sciences, Harvard University, USA in 1983. From 1983 to 2007 Bijoy was with the Department of Electrical and Systems Engineering, Washington University, St. Louis, USA, where he was a Professor and Director of the Center for BioCybernetics and Intelligent Systems. Currently he is the Dick and Martha Brooks Regents Professor of Mathematics and Statistics at Texas Tech University, USA. He received the Eckmann award in 1988 from the American Automatic Control Council, the JSPS Invitation Fellowship from Japan in 1997, the Chinese Academy Fellowship in 2016. Bijoy became IEEE Fellow (2000) and IFAC Fellow (2014). Bijoy had held visiting positions at Tokyo Institute of Technology and Osaka University, Japan, University of Padova in Italy, Royal Institute of Technology and Institut Mittag-Leffler, Sweden, Yale University, USA, Technical University of Munich, Germany, Chinese Academy of Sciences, Beijing, China. Bijoy's current research interest is in BioMechanics, Cyberphysical Systems and Control Problems in Rehabilitation Engineering.