

*Postdoctoral Defense on*

# **Study on Image Fusion based on Edge Preserving Filters**



**Date:** 15<sup>th</sup> November, 2018

**Time:** 4.00-5.30 P.M,

**Venue:** Room No.: 442, Building A,  
School of Aeronautics and Astronautics,  
Shanghai Jiao Tong University

**Abstract:** In computer vision applications, such as, digital photography, surveillance, medical imaging and remote sensing, it is quite common to capture images under various spectral ranges or viewing/lighting conditions to acquire additional information of a scene. However, these images are complementary in nature. For better perception of the scene, complementary information of these images need to be combined. This process is also know as image fusion. From the past three decades, plenty of algorithms are proposed for image fusion based on various tools. In the current study, we developed new image fusion algorithms based on edge preserving filters (Fourth order partial differential equations, Cross bilateral filter and Guided image filter) because of their reduced complexity and improved performance.

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