



**The Department of Public Health Sciences
School of Medicine, University of California, Davis**

Presents a guest talk by:

John Muschelli

Research Associate

Johns Hopkins Biostatistics Consulting Center, Baltimore, MD.

John Muschelli is a candidate for an Assistant or Associate Professor position in the area the Division of Biostatistics in the UC Davis, School of Medicine, Department of Public Health Sciences.

**Computational Methods for Neuroimaging in R: Stroke Hemorrhage in X-ray
Computed Tomography Scanning**

Intracranial hemorrhage (ICH), or hemorrhagic stroke, is a potentially lethal condition when a blood vessel ruptures in the brain. Currently, the location of the hemorrhage is described manually and qualitatively. I will present a full statistical pipeline to 1) describe the location of hemorrhage quantitatively using X-ray computed tomography (CT) scans, 2) determine the locations associated with stroke severity scores, and 3) compare this quantitative approach to manual description of location.

All the tools created presented were written using R, using the `fslr` package and other R packages written during my training for neuroimaging analysis. I will describe these packages and other processing pipelines for CT image analysis implemented using the Shiny system in R.

Monday, February 08 2016

12:00-1:00PM

**Building Location – PHS MS1C RM 130
University of California, Davis campus**

For more information, please contact:

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