

ATELIER NSDC « ANALYSE DE DONNÉES DIRECTIONNELLES AVEC APPLICATIONS EN BIOMÉCANIQUE  
ET EN IMAGERIE MÉDICALE »

25–27 NOVEMBRE 2009

**NICDS WORKSHOP “THE ANALYSIS OF DIRECTIONAL DATA WITH APPLICATIONS TO  
BIOMECHANICS AND BIOMEDICAL IMAGING”**

**NOVEMBER 25–27, 2009**

## On Application of Statistical Theory to Multi-Axis Kinematic Data

JIM DICKEY

School of Kinesiology  
Faculty of Health Sciences  
University of Western Ontario  
London, ON N6A 5B9  
CANADA

[jdickey@uwo.ca](mailto:jdickey@uwo.ca)

---

Our ability to collect complex sets of data far exceeds the typical level of sophistication for interpretation of these data. Whole-body vibration describes the vibration/motion of heavy machinery operators, and is strongly linked to low-back discomfort and injury. This talk focuses on a description of the biomechanical relationships between vibration exposure and potential mechanisms of injury, as well as the structure of potential statistical models to describe these effects.