Workshop: **From Signals to Consciousness using Clifford and Geometric Algebras**

Chairs: Eduardo Bayro-Corrochano, CINVESTAV, Campus Guadalajara, Mexico
       Elio Conte, University of Bari, Neurological and Psychiatric Sciences, Italy
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Dates: 5-6 August 2014

Location: University of Tartu, Estonia.

Abstract:

In past decades, applications of Clifford and Geometric algebras surprisingly spread into many fields of applied mathematics, computer science and engineering. We have witnessed applications of Clifford and Geometric algebras to problems in modeling and detection of high order geometric primitives, estimation and tracking of spinors, diverse formulations in applications of Clifford, Fourier and wavelet transforms, and great progress in geometric computing for neural computing, quantum computing, robotics and control. This interdisciplinary work is still in its infancy, and a major goal of this workshop is to provide a venue for deepening and widening the interaction between researches actively involved in themes ranging from nD signal processing to understanding consciousness.

We invite you to participate in sharing the latest results of your research. Paper format: single column 10 to 15 pages. Extended versions of the presented papers will be published as a special issue in the prestigious **Journal Advances in Applied Clifford Algebras**.

The registration form is available online; please indicate that your paper is for this workshop.

Fields:

including but not limited to:

- Computer science
- artificial intelligence
- cybernetics
- quantum computing
- electrical & electronic engineering
- smart grids
- evolutionary computing

- signal processing
- image processing
- Clifford Fourier and Wavelet transforms
- computer vision
- neural networks
- geometric reasoning
- brain and neuroscience
- cognitive architectures
- Bayesian reasoning
- Fuzzy Logic

- mechanical engineering
- control and automation
- EKF tracking
- robotics
- Humanoids
- optimization
- statistical geometry

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