



### **Symposium O: 1<sup>st</sup> Brazilian Symposium in Friction Stir Welding and Processing**

#### **Scope of the Symposium**

The symposium will cover ongoing research in friction stir welding and processing and other related solid state joining processes applied to low and high melting temperature materials, as Aluminum, Copper, Magnesium, Iron and Nickel-based alloys. Different areas covering from process and tools development, microstructure and performance evaluation, to industrial applications will be covered in this first Brazilian symposium of FSW and FSP.

This meeting will be a great opportunity for the scientific and technical community working on FSW, FSP and related processes to interchange ideas and see some of the new developments in this area in Brazil and the world. This will also be an opportunity to establish fruitful national and international collaborations and coordinated efforts to speed this technology dissemination within the Brazilian industries.

Due to the importance for the Brazilian economy, special emphasis will be given to aerospace, transportation, and oil and gas industries research and industrial applications.

#### **Abstracts will be solicited in (but not limited to) the following areas:**

- *Friction stir welding process development;*
- *Friction stir processing and related cladding processes;*
- *Friction stir spot welding;*
- *Hydropillar welding and related processes;*
- *Tools and tools materials development;*
- *Microstructure evaluation;*
- *Mechanical and environmental performance of friction stir welded and processed materials;*
- *Industrial applications for the aerospace, automotive, transportation and energy sectors;*
- *Process control;*
- *Non-destructive evaluation for FSW;*
- *Process modeling and physical simulation;*
- *Equipment development.*

#### **List of invited speakers**

**Russell Steel**– MegaStir (USA),

**Jorge dos Santos** – Helmholtz Zentrum Geesthacht (Germany)

#### **Organizers:**

Antonio J. Ramirez, Brazilian Synchrotron Light Laboratory, Campinas-SP, Brazil (antonio.ramirez@lnls.br)

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