

# Friction Stir Welding and Processing V

## - symposium during TMS 2009

### **FRICITION STIR WELDING AND PROCESSING V**

- 68 presentations
- Proceedings with 35 papers,  
avail. at [tms.org](http://tms.org)

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# FSW&P V – "Highlights"

Titanium-related presentations:

- Navy: Multipass FSP of NiAl Bronze
- EWI: Advancements in hard metals
- Navy: Near-alpha Ti and Fatigue Crack Growth
- Ohio State Univ: Various Ti-alloys
- Boeing et al: Superplastic forming of FSWed Ti
- Mississippi State Univ: Probe geometry effects in Ti
- Missouri & McGill Univ: Microstructure in Ti

# FSW&P V – "Highlights", cont.

Steel-related presentations:

- Daido Steel, Japan: PCBN tool
- ESS et al: FTSW (Taper Stud), portable machine
- Brigham Young Univ: Convex scroll geometry effects
- EWI: Modelling of tool deformation and wear
- Graz: Precipitation modelling
- Megadiamond et al: T-joints, plunge forces
- Missouri Univ: Dual phase

# FSW&P V – "Highlights", cont.

## Aluminum-related presentations:

- BYU: Approach to advancing the FSP science base
- Various univ's: Material flow modelling and tracing
- General Motors, Missouri Univ: Tubes
- Boeing: Retractable pin, tool forces, in-process NDT
- Univ S Carolina: Boundary cond., tool mat., H<sub>2</sub>O
- S Dakota Univ: Weapon repair, \$31M annual savings

## FSSW-related presentations:

- ORNL, Missouri Univ: High-strength steels
- South Dakota Univ: Thermoplastic to Al, Refill FSSW