

# ISRCS 2011

Hosted in Boise, Idaho  
August 9-11, 2011

## 4th International Symposium on Resilient Control Systems

The major purpose of this symposium is to extend and endorse particular concepts that will generate novel research and codify resilience in next generation control system designs.



University of Idaho



### Contact Information

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## Special/Invited Session Announcement and Call for Papers

### Session S/I-04:

Resilient Control of Shipboard Systems

### Session Abstract:

Naval systems are becoming increasingly complex, with mission success depending on the correct operation of in excess of 20,000 coupled components. Because naval platforms are placed in harm's way, this control of ship systems is confounded, requiring shipboard systems address multiple, unpredictable component failures. Even when damaged, ships are required to function, therefore shipboard systems need to be resilient, managing complex damage events in real time. In situ sensor and communications equipment are also subject to damage shipboard system control infrastructures must themselves be resilient. Also, reduced workload and manning commitments limit the availability of human operators, forcing ship systems to address damage events autonomously. This session will focus on research that enables resilient ship systems.

### Topics:

Topics of interest include autonomous control, system of systems modeling, damage modeling, control policies for complex systems, agent based control for shipboard systems, design optimization methods for complex shipboard systems and other topics of relevance to resilient ship systems.

### Chairs:

- Frank Ferrese, Naval Surface Warfare Center, Carderock Division, frank.ferrese@navy.mil
- David Scheidt, Johns Hopkins Applied Physics Lab, david.scheidt@jhuapl.edu

### Authors' Schedule:

- Paper submission deadline: **April 4, 2011**
- Notification of acceptance: **June 6, 2011**