



## FUSION 2005 CALL FOR PAPERS

### The Eighth International Conference on Information Fusion

July 25 - 29, 2005- Wyndham Philadelphia at Franklin Plaza

Philadelphia, Pennsylvania 19103, U.S.A.

Sponsored by the ISIF and IEEE [www.fusion2005.org](http://www.fusion2005.org)

Et ipsa scientia potestas est. — "And knowledge itself, is power"



**Program Overview.** Authors are invited to submit papers describing advances, applications, and ideas in information fusion, both theory and application, with submissions on non-traditional topics being encouraged. The conference will also feature plenary talks and tutorials on topics of interest. Submissions on the following topics are desired, and submissions on other related topics and proposals for special sessions are also welcomed.

#### A. Theoretical and technical advances

- A.1. Information modeling
- A.2. Probability and statistics
- A.3. Fuzzy Information
- A.4. Fuzzy logic and expert systems
- A.5. Possibility theory
- A.6. Evidential reasoning
- A.7. Random sets
- A.8. Neural networks
- A.9. Genetic algorithms
- A.10. Neuro-mimetic approaches
- A.11. Artificial intelligence
- A.12. Bayesian and Belief methods
- A.13. Formal methods
- A.14. DSMT Theory
- A.15. Processing of imprecise information
- A.16. Nonlinear estimation and filtering
- A.17. Semiotics
- A.18. Multi-agent systems
- A.19. Intelligent agents
- A.20. Ontologies
- A.21. Intent Inferencing
- A.22. Strategic Risk Analysis
- A.23. Other emerging methodologies

#### B. Algorithms and systems

- B.1. Target tracking
- B.2. Target Recognition/Identification
- B.3. Data association
- B.4. Sensor registration
- B.5. Image Fusion/Exploitation
- B.6. Pattern recognition
- B.7. Machine intelligence
- B.8. Database fusion
- B.9. Knowledge-based systems
- B.10. Data mining
- B.11. Sensor or resource management
- B.12. Classification
- B.13. Integrated systems
- B.14. Distributed systems
- B.15. System Design/Architecture
- B.16. Computer network security
- B.17. Algorithms and performance
- B.18. Hardware and software issues
- B.19. Network Centric
- B.20. Force Centric
- B.21. High/low level fusion
- B.22. Course of Action Analysis
- B.23. C4I

#### C. Applications

- C.1. Fusion Applications and test beds
- C.2. Signal and image processing
- C.3. Defense systems
- C.4. Robotics and control
- C.5. Decision Support
- C.6. Diagnostics and fault detection
- C.7. Vehicles and transportation systems
- C.8. Navigation, positioning, and guidance
- C.9. Diagnostic Information Fusion
- C.10. Economy, business, and finance
- C.11. Surveillance and situation assessment
- C.12. Remote/Satellite Sensing/Fusion
- C.13. Medicine, biology, and diagnostics
- C.14. Information systems and decision-aid
- C.15. Management/Business Information Fusion
- C.16. Machine vision and learning
- C.17. Security and safety applications
- C.18. Software fusion paradigm
- C.19. Fifth generation languages
- C.20. Situation Assessment
- C.21. Homeland security
- C.22. Other emerging applications

**Conference Location.** The Wyndham Philadelphia at Franklin Plaza is conveniently located in the heart of Center City Philadelphia. The downtown location provides easy access to all major transportation arteries and is within walking distance to most of Philadelphia's famous points of interest. It is located only a few blocks away from "Restaurant Row" and the Museum area. [www.wyndhamphiladelphia.com](http://www.wyndhamphiladelphia.com)

**Paper Submissions.** Detailed instructions for paper submissions can be found at [www.fusion2005.org](http://www.fusion2005.org). Fusion 2005 will include *regular* contributed papers, *invited* sessions, *special* sessions and a *student* paper program. Proposals for special sessions are sought;

#### Important Deadlines:

- 30 November 2004, All summaries
- 30 January 2005, Full papers: regular, special, invited, student sessions
- 15 May 2005, Notification of acceptance
- 15 June 2005, Camera ready papers
- July 25–29 2005, Conference dates

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