



## CALL FOR PAPERS

The International Conference on Information Fusion is a premier forum for interchange of the latest research in information fusion and discussion of its impacts on our society. The conference brings together researchers and practitioners from industry and academia to report on the latest scientific and technical advances. Authors are invited to submit papers describing advances and applications in information fusion.

The 18<sup>th</sup> Fusion conference will be held in Washington, DC, USA at the Grand Hyatt Hotel. Washington is home to many national monuments and museums, which are primarily situated on or around the National Mall within walking distance of the conference venue. The greater DC area provides a variety of tourist attractions that can satisfy even the most demanding visitor. By hosting 176 foreign embassies as well as headquarters of many international organizations, DC offers a culturally rich environment ripe for exploration. The conference will be held the week following the US Independence Day, July 4<sup>th</sup>. This creates an opportunity for those coming to the conference to arrive a bit earlier and enjoy the best the city can offer at this special time.

### Topics of interest

1. Theory and Representation  
Probability theory; Bayesian inference; fuzzy sets; fuzzy logic; Dempster-Shafer; evidential reasoning; belief functions; logic based fusion; preference aggregation; point processes and random sets; neural networks; ontology; graphical representation & graph inference; category theory.
2. Algorithms  
Data Registration; sensor registration; detection; combined detection and tracking; classification; automatic target recognition; nonlinear filtering and smoothing; particle filters; Markov chain Monte Carlo; target tracking and localization; feature aided tracking; data association; video tracking; radar tracking; situation assessment; pattern analysis; behavior modeling; predictive and impact assessment; process management; sensor/resource management; active and passive data fusion; high level fusion; image fusion; hard soft data fusion; database fusion; distributed fusion; data mining; machine learning; vote; data analytics.
3. Modeling, simulation and evaluation  
Target modeling; sensor modeling; simulation tools; benchmarks; testbeds; fusion/tracking performance modeling; fusion/tracking performance evaluation; performance metrics.
4. Applications  
Sensor networks; defense and intelligence; aerospace; homeland security; public security; computer security; imaging; robotics; navigation and guidance; autonomy; intelligent transportation; logistics; automotive; manufacturing; economics and finance; environmental monitoring; medical care; big data; business intelligence.

**Paper Submissions:** Prospective authors are invited to submit papers electronically via the system found at the conference web page. Paper templates and submission instructions will be available at the conference website. Paper submissions are due by 1 March 2015 and should be no more than eight pages in length. There will be a charge for each additional page beyond eight pages. All papers must be approved for public release via the appropriate procedure of their employers/funding agencies prior to submittal.

**Special Session Proposals:** Proposers are invited to submit via the conference web page the theme of the special session as well as a list of possible committed papers. Proposals for special sessions are due by 1 February 2015. Papers for special sessions must also be submitted for review by 1 March 2015.

**Tutorial Proposals:** The first day of the conference will be devoted to tutorials on information fusion. Proposals for tutorials are invited. A title and description of the tutorial and biographical sketch of the instructor are due via the conference web page by 1 February 2015.

**Student Paper Program:** Fusion 2015 is featuring a student paper program to encourage the involvement of young engineers and scientists in information fusion. Conference fees will be discounted for all student attendees. Further details will be available at the conference website.

### Important Deadlines:

Special session proposals, Tutorial Proposals	Feb 1, 2015
Full paper submission	Mar 1, 2015
Notification of acceptance	May 1, 2015
Final paper submission, early registration	June 1, 2015

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