**2016 IEEE Radar Conference: Call For Papers**

**Enabling Technologies for Advances in Radar**

*May 2nd - 6th, 2016*

**Loews Philadelphia Hotel**

**Philadelphia, Pennsylvania, USA**

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**Conference Location**

The Loews Philadelphia Hotel at 1200 Market Street is 2 blocks from City Hall. All of Philadelphia’s center city attractions are within walking distance or short taxicab rides. Center city and close regional cultural and historical attractions are numerous. An extensive transit system is available to many area attractions, as well as the regional airport and East Coast rail service. Nearby historical attractions include the Liberty Bell, Independence Hall, the Betsy Ross House and Old City. Cultural attractions include the new highly-acclaimed National Constitution Center, the Philadelphia Museum of Art, the Franklin Institute Science Museum, the Academy of Music, the Kimmel Center, and many more world class theaters and museums. In addition, the city is home to a vast array of culinary choices from the Italian and Reading Terminal Markets, Philly pretzels and cheese steaks to some of the world’s finest restaurants. Please visit [www.radarconf16.org](http://www.radarconf16.org) for registration dates and additional visitors information.

**Philadelphia - The Birthplace of America**

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- Peter M. Silverberg, Consultant
- John K. Smith, Consultant
- I. Marvin Weilerstein, Consultant

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**Important Dates:**

- **Paper Summaries Due:** 21 December 2015
- **Notification of Acceptance:** 04 February 2016
- **Paper Submission Due:** 05 March 2016

*2016 Radar Conference: 02 – 06 May 2016*

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Known as birthplace of the country, the dynamic city of brotherly love is also well-known as a science and technology place of firsts. From Ben Franklin’s elementary electricity experiments to ENIAC’s far more advanced use of electricity, innovators have come to Philadelphia for centuries and the city has rewarded them. Philadelphia is home to the oldest annual awards for scientific achievement, the Franklin Institute of Philadelphia’s gold medals; over a hundred recipients have gone on to win Nobel prizes. The region is also home to many companies whose products have for over 50 years shaped what the radar community acknowledges as some of the world’s most advanced radar technologies. Join us in this city of innovation and experience the advancement of radar science and technology by participating in the IEEE Radar 2016 conference appropriately themed “**Enabling Technologies for Advances in Radar**.” Original papers describing new technologies and techniques that significantly advance radar system capabilities for ground penetration, land, ocean, air, space and astronomy applications are welcome. Innovative system applications in air-defense, anti-missile, imaging, and mobile are encouraged. Technology areas such as radar, wideband, MIMO, and antenna signal processing, hardware and devices, materials, lasers, scattering, big data processing, architectures, multi-function operation, multi-site coordination and more are appropriate. In addition to the presentation of contributed technical papers in high quality oral and poster sessions, the committee has planned a conference agenda that includes invited talks from leading experts within our community, an excellent selection of tutorials, exhibits, and informal gatherings for colleagues to share ideas.

**Paper Submissions**

Authors are required to submit a 3-4 page summary, inclusive of figures. Electronic submission is required in Adobe PDF format. The cover page must include the title, names of authors (with the contact author identified), organizational affiliation, address, telephone and fax numbers, and email addresses. Authors are permitted to indicate paper suitability for a poster format presentation. Student papers (2-4 pages) are strongly encouraged.

All papers must be electronically submitted to the Technical Program Chair at the [radarconf16.org](http://radarconf16.org) website. The website will be available to upload not later than 90 days before the deadline. The deadline for submission of summaries is 21 December 2015. Authors will be notified of acceptance by 4 February 2016, and will receive instructions and forms for publication at that time. Note that authors will be limited to orally presenting at most 2 papers at the conference. Completed electronically submitted papers (limited to 6 pages inclusive of text, figures, and tables) will be required by 5 March 2016.
Suggested Topics

Component & Subsystem Development
Advanced signal processing components, new materials (e.g., photonic, chiral materials, metamaterials, etc.), new manufacturing techniques and packaging (including low cost), distributed processing architectures, COTS processors and commercial components, SiC and GaN MMICs, DDS waveform generators and modulators, efficient low cost T/R modules, low cost digital receivers.

Radar Signal & Data Processing
Digital beamforming, array processing, MIMO, STAP, superresolution, detection and estimation techniques, target discrimination/classification/ID/recognition, tracking, data association, sensor/data fusion, sidelobe control, false alarm mitigation, waveform processing, waveform diversity, multipath exploitation, compressive sensing, improved ECCM techniques.

Antenna Technology
Multibeam digital antenna architectures, conformal arrays, lightweight antennas, subarraying techniques, optical manifolding, low sidelobe antenna designs, ultrawideband, wideband/multifrequency, antenna integration with transceivers, multi-polarization antenna designs.

Phenomenology
Propagation and scattering phenomenology, target and clutter measurement and modeling, chaff behavior and multipath, terrain and building scattered interference, foliage and ground propagation, modern urban clutter environments (e.g., wind farms, cell phone towers, etc.), spatial and temporal scattering statistics.

Sponsored by the IEEE Aerospace and Electronic Systems Society, and the Philadelphia Section of the IEEE.

Lockheed Martin Space Fence

Radar Systems
Advanced concepts in radar, imaging radar, bistatic/multistatic radar, high resolution SAR, multifunction airborne tactical and surveillance technology, airborne, shipborne and space based radar, see and avoid radar, radar control and scheduling, radar system reliability, air traffic control, UAV, automotive and weather radar, and counter-terrorism, counter-drug, health applications, homeland security, law enforcement applications.

Lockheed Martin AEGIS

Emerging Technologies
Radar networking and multimission scheduling, cognitive radar, polarimetric radar, passive radar, ultrawideband radar, interferometric SAR, metamaterials, fiber optic remoting and photonics, ground penetrating radar, laser radar (LIDAR).