

2004 IEEE Radar Conference

Innovative Radar Technologies – Expanding System Capabilities

April 26th - 29th, 2004

Wyndham Philadelphia At Franklin Plaza
Philadelphia, Pennsylvania

Conference Web Site

www.radar04.org

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John K. Smith, Johns Hopkins University/APL

jksmith@radar04.org

Deputy General Chair

Richard P. Buck, Lockheed Martin

rpbuck@radar04.org

Technical Program Chair

Joseph G. Teti, Jr., Lambda Science, Inc.

jgteti@radar04.org

Local Arrangements Chair

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bfell@radar04.org

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jjsudano@radar04.org

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slkatz@radar04.org

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gecoxson@radar04.org

Tutorials Chair

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difarina@radar04.org

Registration Chair

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foliveto@radar04.org

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nkarakabudak@radar04.org

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kdbreuer@radar04.org

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Francis P. Darreff, Lambda Science, Inc.

fpdarreff@radar04.org

Christopher T. Nadovich, Julia Thomas Associates

ctnadovich@radar04.org

Science and engineering innovation are part of the culture in the Philadelphia area. The region is home to the many great accomplishments of Benjamin Franklin, ENIAC - the world's first digital computer, and recent Nobel Prize laureates in Physics (astrophysics) and Chemistry (conductive polymers). The region is also home to many companies whose products contribute and shape what the radar community acknowledges as some of the world's most advanced radar systems and technologies. In keeping with tradition, the theme of this conference is "Innovative Radar Technologies – Expanding System Capabilities." Original papers describing new advances in radar system capabilities that have resulted from recent developments in physics (e.g., materials, devices, scattering, etc.) and mathematics (e.g., signal and data processing, information theory, etc.) are desired. Papers describing advances in multi-function integration, system architectures, and innovative applications of radar and radar techniques are also encouraged. 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, and numerous informal gatherings for colleagues to share ideas.

Paper Submissions

Authors are required to submit a 1,000 - 1,500 word paper summary with figures following the text. Electronic submission is required in either Adobe pdf or Microsoft Word file formats (pdf format preferred). 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 are strongly encouraged.

Send papers electronically to the Technical Program Chairman at jgteti@radar04.org. The deadline for submission of summaries is 30 September 2003. Authors will be notified of acceptance by 1 December 2003, and will receive instructions and forms for publication at that time. Completed electronic papers (limited to 8 pages inclusive of text, figures, and tables) will be required by 30 January 2004. Where applicable, government approval for publication as an unclassified, public-release paper will also be required with the final paper submission.



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

Suggested Topics

Component & Subsystem Development

Advanced signal processing components, new materials (e.g., chiral materials, meta-materials, etc.), new manufacturing techniques and packaging, distributed processing architectures, COTS processors and commercial components, SiC and GaN transistors, wideband high dynamic range A/D converters, DDS waveform generators and modulators, efficient low cost T/R modules, and low cost digital receivers.

Radar Signal & Data Processing

Digital beamforming, array processing, STAP, superresolution, detection and estimation techniques, target discrimination/classification/ID/recognition, tracking, data association, sensor fusion, sidelobe control, false alarm mitigation, multipath processing, and improved ECCM techniques.

Antenna Technology

Multibeam antenna architectures, conformal arrays, subarraying techniques, optical manifolding, low sidelobe antenna designs, ultrawideband, wideband/multifrequency, and dual polarization antenna designs.

Phenomenology

Propagation and scattering phenomenology, target and clutter measurement and modeling, chaff behavior and multipath, terrain and building scattered interference, spatial and temporal scattering statistics.

Radar Systems

Advanced concepts in radar, imaging radar, high resolution SAR, multifunction airborne tactical and surveillance technology, airborne, shipborne and space based radar, radar control and scheduling, radar system reliability, air traffic control, automotive and weather radar, and counter-terrorism, counter-drug and law enforcement applications.

Emerging Technologies

Bistatic radar, multistatic radar and radar networking, polarimetric radar, foliage penetrating radar, ultrawideband radar, interferometric SAR, MEMS applications, fiber optic remoting and photonics, ground penetrating radar, and laser radar.

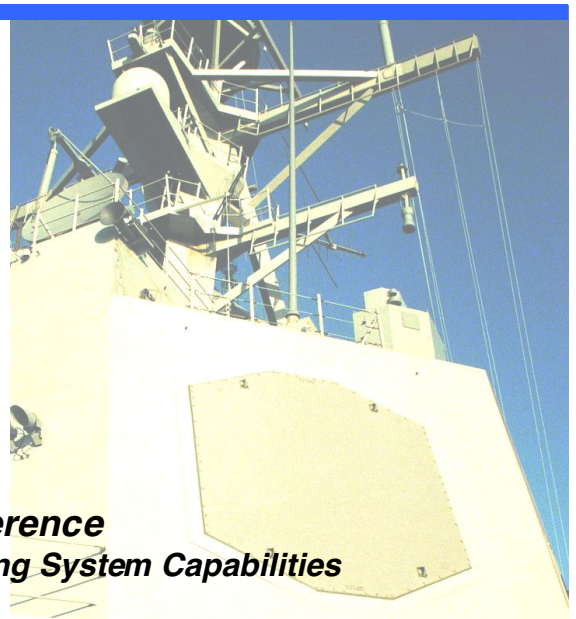
Conference Location

The Wyndham Philadelphia At Franklin Plaza hotel is located in center city at 17th & Race Streets, within walking distance or short taxicab rides to many area attractions, as well as regional airport and east coast rail service. Center city and close regional cultural and historical attractions are numerous. Cultural attractions include the Philadelphia Museum of Art, The Franklin Institute Science Museum, the Academy of Music, The Kimmel Center (new home of the Philadelphia Orchestra), and many more world class theaters, and museums. Nearby historical attractions include the Liberty Bell, Independence Hall, and the Betsy Ross House. In addition, the city is home to a vast array of culinary choices from famous Philly pretzels and cheese steaks to some of the world's finest restaurants. Please visit www.radar04.org for additional information.



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The Birthplace of America***

**2004 IEEE Radar Conference
J. G. Teti, Jr., Technical Program Chair
Lambda Science, Inc.
P. O. Box 238
Wayne, PA 19087-0238, USA**



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