The 2018 IEEE Workshop on Statistical Signal Processing (SSP) will be held from 10-13 June 2018 in Freiburg, Germany. The SSP Workshop is a unique meeting that brings members of the IEEE Signal Processing Society together with researchers from allied fields such as bioinformatics, communications, machine learning, and statistics. One of its key features is having all contributed and special sessions as poster sessions allowing extensive interaction and networking. The scientific program of SSP 2018 will include invited plenary talks, and regular and special sessions with contributed research papers. All submitted papers are reviewed by experts, and all accepted papers will be published on IEEEExplore.

We invite submitting original research papers on topics including, but not limited to, the following areas:

**Foundations, methods, and algorithms**
- Detection and estimation theory
- Machine learning and pattern recognition
- Signal separation methods
- Data driven methods
- Bayesian techniques
- Sampling and reconstruction
- Signal and system modeling
- Adaptive signal processing
- Distributed signal processing
- Signal processing over graphs and networks
- Optimization
- Sparsity-aware processing
- Matrix and tensor methods

**Application areas**
- Bioinformatics and genomics
- Big data
- Signal processing for the internet of things
- Array processing, radar, and sonar
- Communication systems and networks
- Sensor networks
- Information forensics and security
- Medical and biomedical imaging
- Social networks
- Smart grids and industrial applications
- Geoscience
- Astrophysics
- Financial signal processing

**Submission of papers**: Prospective authors are invited to submit full papers, with up to four pages of technical content (references may be listed on a fifth page), using the template and formatting guidelines posted at www.ssp2018.org. All accepted papers must be presented at the workshop in order to be included in the proceedings. There will be best student paper awards.

**Submission of proposals for special sessions**: Special session proposals must include a title, rationale, session outline, list of invited papers, and contact information. Please refer to www.ssp2018.org for further information regarding the submission of proposals.

**Important dates**:
- Submission of proposals for special sessions: 24 November 2017
- Notification of acceptance of special sessions: 8 December 2017
- Submission of full papers: 26 January 2018
- Submission of full papers (deadline extended): 6 February 2018
- Notification of paper acceptance: 23 March 2018
- Registration and camera-ready papers: 20 April 2018

**Venue**: The conference will be held at the spectacular Historical Merchants’ Hall, one of the most outstanding historical buildings in Freiburg dating back to the 14th century. It is situated in the historical center of the city right next to Freiburg cathedral and its main square, which features al fresco dining and boutique shopping.

Freiburg is a famous old university town, known for its high standard of living, its beautiful natural setting, and for being the sunniest and warmest city in Germany. It is located in the heart of the Baden wine-growing region close to the Swiss and French borders and serves as the main entry point to the breathtaking beauty of the Black Forest. Freiburg has a convenient high-speed train connection to Frankfurt International Airport.