

SAW Symposium program

(as of September 2018)



SAW Symposium 2018 topic areas:	
I:	Design, concepts and materials for SAW-based sensors and actuators
II:	SAW sensors for physical, chemical, biological applications and gases
III:	SAW-based actuators, atomizers and microfluidics
IV:	Industrial applications and deployments of SAW

Monday, October 1, 2018

08:30 Registration (with coffee)

10:00 Opening Hagen Schmidt SAWLab Saxony

10:10 *Session 1: Design, concepts and materials for SAW-based sensors and actuators (part I)*
Chair: Sergei Zhgoon (Moscow Power Engineering Institute)

10:10	A Novel Range Detection Method by Combining SAW Tags and Resonators	Honglang Li	Institute of Acoustics, CAS	I
10:30	Preparation techniques for application-relevant acoustofluidic devices	Andreas Winkler	IFW Dresden	I
10:50	Antennas for industrial SAW sensor applications	Niels Neumann	TU Dresden	I
11:10	Improving the design of high temperature SAW sensor devices by means of advanced characterization methods	Robert Weser	IFW Dresden	I
11:30	KEYNOTE Modeling and Parameter Extraction of SAW Devices by Coupling of Modes Model	Rei Goto	Skyworks Solutions, Inc.	I

12:10 *Session 2: Exhibitor introduction*

12:25 Lunch

13:30	Session3: Design, concepts and materials for SAW-based sensors and actuators (part II) <i>Chair: Jun Kondoh (Shizuoka University)</i>			
13:30	Advanced Piezoelectric Crystals of Langasite Family	Dmitry Roshchupkin	Inst. of Microelectronics Techn. & High-Purity Materials. RAS	I
13:50	Ultra long-term investigation of Ca ₃ TaGa ₃ Si ₂ O ₁₄ -based resonant sensors at extreme temperatures	Yuriy Suhak	Clausthal University of Technology	I
14:10	Towards CMOS integration of SAW devices: progress and challenges	Christian Wenger	IHP GmbH	I

14:30	Session 4: SAW sensors for physical, chemical, biological applications and gases (part I) <i>Chair: Gudrun Bruckner (CTR AG)</i>			
14:30	KEYNOTE SAW studies of light activated RR-P3HT polymer films in warfare agent simulant (DMMP) detection	Wieslaw Jakubik	Silesian University of Technology	II

15:10 Coffee break

15:30	Session 4: SAW sensors for physical, chemical, biological applications and gases (part I, cont.) <i>Chair: Gudrun Bruckner (CTR AG)</i>			
15:30	Non-invasive acoustic online sensor for biofilm detection	Sandra Lasota	ISAT Coburg	II
15:50	Evaluation of deterioration of engine oil using shear horizontal surface acoustic wave sensor based on acoustoelectric interaction	Jun Kondoh	Shizuoka University	II
16:10	Sensitivity of Wide Band Low Noise Love Wave Magnetic Field Sensor System	Benjamin Spetzler	Kiel University	II

18:00 Social event & Networking dinner (Glaeserne Manufaktur & e-VITRUM)

Tuesday, October 2, 2018

08:00 Registration

09:00	Session 5: SAW sensors for physical, chemical, biological applications and gases (part II) <i>Chair: Andreas Winkler (SAWLab Saxony)</i>			
09:00	Reflections on SAW based pressure sensor designs for elevated temperatures	Gudrun Bruckner	CTR AG	II
09:20	Comparison of the fundamental and higher order Love waves' sensitivities in a SAW based magnetic field sensor	Julius Schmalz	Kiel University	II

09:40 Session 6: Poster presentation with coffee

10:40

Session 7: Industrial applications and deployments of SAW (part I)
Chair: Thomas Ostertag (RSSI GmbH)

10:40

All-Quartz Packaged SAW Strain Sensors for High Volume Products	Victor Kalinin	Transense Technologies	IV
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11:00

Reader Concept for Wireless Resonant Surface Acoustic Wave Instrumentation based on Instantaneous Frequency Measurement	Fabian Lurz	Institute for Electronics Engineering, FAU	IV
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11:20

SAW Sensing and Identification for Industrial Tool Management Systems	Rene Fachberger	sensideon GmbH	IV
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11:40

Space Data Milking – advanced application of SAW-Ident in livestock farming	Hannes Funke	SAW Components Dresden GmbH	IV
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12:00 Lunch

13:30

Session 8: Industrial applications and deployments of SAW (part II)
Chair: Victor Kalinin (Transense Technologies)

13:30

KEYNOTE Surface acoustic wave (SAW) based platform technology for characterization and identification of molecular interactions	Marc Lamothe	Aviana Molecular Technologies	IV
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14:10

Continuous Blood Pressure Monitoring in Ambulatory patients using SAW technology; an update	Chris McLeod	Imperial College London	IV
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14:30 Coffee break

15:00

Session 9: SAW-based actuators, atomizers and microfluidics
Chair: Chris McLeod (Imperial College London)

15:00

Quasi-shear surface acoustic waves in microfluidics	Alexander Darinskii	Inst. of Crystallography FSRC Crystallography & Photonics, RAS	III
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15:20

Filtration of Water in Graphene	Evgenii Emelin	Inst. of Microelectronics Techn. & High-Purity Materials. RAS	III
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15:40

Passive RADAR measurement of passive sensors: demonstration using WiFi	Jean-Michel Friedt	FEMTO-ST & SENSEOR	I
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16:00 Closing of Symposium

Session 6: Poster Presentation (combined)			
<i>Chair: Hagen Schmidt (SAWLab Saxony / Leibniz IFW Dresden)</i>			
Measurement Method for Passive Wireless Sensors Based on Surface Acoustic Waves	Sergei Bogoslovsky	NPP "Radar mms"	I
Beamforming approach for identification and separation of SAW sensor on temperature monitoring applications	Christophe Jendrzczak	SENSeOR SAS	I
Improving the high temperature stability of RuAl metallization for Surface Acoustic Wave devices	Marietta Seifert	IFW Dresden	I
DESMA: A MATLAB based SAW Simulation tool	Sergio Gutierrez	IMTEK, University of Freiburg	I
Multi-parameter extraction from microacoustic measurements	Manfred Weihnacht	innoXacs	I
Realization of wire bond interconnecting process stable for high temperature applications with platinum wire and SAW sensors	Daniel Ernst	TU Dresden	I
Additive manufacturing of 100 MHz SAW devices	Siegfried Menzel	IFW Dresden	I
ZnO/La ₃ Ga ₅ SiO ₁₄ Ultraviolet Radiation Sensor	Dmitry Roshchupkin	Inst. of Microelectronics Techn. & High-Purity Materials. RAS	II
Highly sensitive surface acoustic wave sensors functionalized with new bisphenol S based molecules for lead ions detection. Experimental investigations and DFT	Najla Fourati	SATIE, UMR CNRS	II
SAW-Transponder Combined with Passive Single-Use Threshold Sensors for Wireless Humidity Monitoring	Sebastian Haefner	TU Dresden	II
SAW-based fluid and particle manipulation in lithographically structured on-chip microchannels	Cynthia Richard	IFW Dresden	III
Simultaneous measurement of velocity and temperature distributions in SAW-actuated liquids	Jörg König	TU Ilmenau	III
Investigation of SAW-based aerosol generator performance by Phase-Doppler Anemometry	Mehrzad Roudini	IFW Dresden	III