# Schedule

### May 19

Arrival in Sendai

14:00 – Check-in at Daiwa Roynet Hotel http://www.daiwaroynet.jp/english/sendai/

Free time

## May 20

08:30	Bus from Daiwa Roynet Hotel to Tohoku University
09:00 - 10:00	Laboratory tour (optional) http://www.ais.riec.tohoku.ac.jp/
10:30	Bus from Tohoku University to Miyagi Zao Royal Hotel http://www.daiwaresort.jp/en/zaou/
11:30 – 12:00	Arrival and check-in at Miyagi Zao Royal Hotel
12:00 - 13:00	Lunch
13:00 – 13:10	Opening
<b>13:10 – 14:50</b> 13:10 13:50 14:10	<b>Spatial sound perception &amp; technology I</b> ALTINSOY, Ercan (Dresden University of Technology) OODE, Satoshi (NHK) OMOTO, Akira (Kyushu University)
14:30	IWAYA, Yukio (Tohoku Gakuin University)
14:50 – 15:10	Break
15:10 - 16:50	Spatial sound perception & technology II
15:10	JIN, Craig (The University of Sydney)
15:50	FAZI, Filippo (University of Southampton)
16:30	OTANI, Makoto (Kyoto University)

### 16:50 – 18:00 Discussion time

 10.00	<b>-</b>
17:00	Sakamoto) Student discussion (Kisoo Kwon, Joun Yeop Lee, Won Ik Cho, Ji Won Choi, Joo Hyun Park, Hideto Aichi, Sho Saito, Yuji Saito, Yuki Tamura, Miharu Noda)
17:00	Faculty meeting (Jing Wang, Kai Qiao, Seong Cheol Kim, Masashi Unoki, Daisuke Morikawa, Takashi Nose, Shuichi
17:00	PI meeting (Yonghong Yan, Nam Soo Kim, Masato Akagi, Yôiti Suzuki, Akinori Ito)

18:00 – 19:00 Dinner

19:30 –	Special session
19:30	LI, Junfeng (Chinese Academy of Sciences)
19:50	KITAMURA, Yoshifumi (Tohoku University)

Breakfast

## May 21

<b>09:00 – 10:40</b> 09:00 09:40 10:20	<b>Speech &amp; music signal processing I</b> HOFFMANN, Ruediger (Dresden University of Technology) BIRKHOLZ, Peter (Dresden University of Technology) KONDO, Kazuhiro (Yamagata University)
10:40 - 12:00	Poster session
12:00 – 13:00	Lunch
<b>13:00 – 14:40</b> 13:00 13:40 14:00 14:20	<b>Speech &amp; music signal processing II</b> ZIOLKO, Bartosz (AGH University of Science and Technology) KITAMURA, Tatsuya (Konan University) SUZUKI, Motoyuki (Osaka Institute of Technology) LEE, Seokjin (Kyonggi University)
14:40 - 15:00	Closing
15:00	Bus from Miyagi Zao Royal Hotel to: 1. Sendai Station 2. Sendai Airport and Tohoku University

# **Presentation list**

### **Keynotes**

- 1. <u>Ercan Altinsoy</u>, "The role of the spatial audio on the plausible multimodal scene generation: From wave field synthesis to audio induced vibration reproduction"
- 2. <u>Craig Jin</u>, "Consideration of High-Fidelity Spatial Audio Systems: Loudspeaker Arrays and Headphones"
- 3. Filippo Fazi, "Loudspeaker arrays for sound reproduction"
- 4. <u>Ruediger Hoffmann</u>, "Roots of articulatory speech synthesis in history"
- 5. Peter Birkholz, "Recent progress in articulatory speech synthesis"
- 6. <u>Bartosz Ziolko</u> and Magdalena Igras, "Speech segmentation and quasilinguistic information in speech processing"

### **Invited talks**

- 1. <u>Satoshi Oode</u>, "Measurement of spatial impressions and types of emotion evoked by sound"
- 2. Yuto Saito and <u>Akira Omoto</u>, "Introduction of amplitude panning into physically assured sound field reproduction system"
- 3. <u>Yukio Iwaya</u>, Shoya Yarimizu, Makoto Otani, Takao Tsuchiya and Junfeng Li, "Discrimination of sound fields different in spatial aliasing"
- 4. <u>Makoto Otani</u>, Yuki Fujii, Hikaru Watanabe, Takao Tsuchiya and Yukio Iwaya, "Physical and perceptual effects of spatial aliasing in sound field reproduction"
- 5. <u>Junfeng Li</u>, Risheng Xia, Yôiti Suzuki and Yonghong Yan, "3D sound technologies for future interactive communications over the internet"
- 6. <u>Yoshifumi Kitamura</u>, "Reactive interiors: designing multimodal aware spaces"
- 7. <u>Kazuhiro Kondo</u>, "Recent advances in the estimation of speech intelligibility using objective measures"
- 8. <u>Tatsuya Kitamura</u>, "Effects of emotions on configuration of the speech articulators"
- 9. <u>Motoyuki Suzuki</u>, "Lyrics recognition from singing voice dealing with insertion error"
- 10.<u>Seokjin Lee</u>, "Estimation of number of bases for nonnegative matrix factorization in automatic music transcription applications"

#### **Posters**

- 1. <u>Jing Liu</u> and Xiang Xie, "Satisfaction analysis based on emotion recognition in call centers"
- 2. <u>Yukiko Kageyama</u>, Yuya Chiba, Takashi Nose and Akinori Ito, "Evaluation of dialogue strategies for non-task-oriented dialogue using MMDAgent"
- 3. <u>Zhi Zhu</u>, Ryota Miyauchi, Yukiko Araki and Masashi Unoki, "Modulation spectral features for predicting vocal emotion recognition by noise-vocoded speech"
- 4. <u>Yawen Xue</u>, Yasuhiro Hamada and Masato Akagi, "A method for synthesizing emotional speech using the three-layered model based on a dimensional approach"
- 5. <u>Kouki Hongo</u>, Takashi Nose and Akinori Ito, "Singing voice synthesis using hybrid approach with HSMM and DNN"
- 6. <u>Yongwei Li</u> and Masato Akagi, "A method for estimating glottal source waves of emotional speech using ARX-LF model"
- 7. <u>Shuhei Yamada</u>, Takashi Nose and Akinori Ito, "Speech corpus design for conversational speech synthesizer"
- 8. <u>Li Wang</u>, Fuping Pan and Yonghong Yan, "Automatic scoring of English spoken question-answer testing"
- 9. <u>Hafiyan Prafianto</u>, Takashi Nose and Akinori Ito, "Improvement on precise evaluation of prosody by human evaluators using prosody substitution"
- 10.<u>Xingfeng Li</u> and Masato Akagi, "Multilingual speech emotion recognition based on a three-layer model"
- 11.<u>Harunori Koike</u>, Takashi Nose, Takahiro Shinozaki and Akinori Ito, "The effect of accuracy of DTW on the performance of voice conversion"
- 12.<u>Tae Gyoon Kang</u> and Nam Soo Kim, "DNN-based voice activity detection with multi-task learning"
- 13.<u>Anh-Tuan Dinh</u> and Masato Akagi, "Quality improvement of HMM-based synthesized speech based on decomposition of naturalness and intelligibility using non-negative matrix factorization"
- 14.<u>Il-Young Jeong</u> and Kyogu Lee, "DNN-based temporal feature learning for music genre classification"
- 15.<u>Takahiro Furuya</u>, Emika Takeishi, Yusuke Yamada, Takashi Nose and Akinori Ito, "Evaluation of speech recognition system using DNN-HMM"
- 16.<u>Soohyun Bae</u> and Nam Soo Kim, "Environmental sound classification using recurrent neural network with long short-term memory"
- 17.<u>Yueyue Na</u>, Yanmeng Guo, Qiang Fu and Yonghong Yan, "Cross array and rank-1 MUSIC algorithm for acoustic highway lane detection"

- 18.<u>Kang Hyun Lee</u>, Shin Jae Kang, Woo Hyun Kang and Nam Soo Kim, "Twostage noise aware training using asymmetric deep denoising autoencoder"
- 19.<u>Surasak Boonkla</u> and Masashi Unoki, "Robust speech analysis based on source-filter model using multivariate empirical mode decomposition in noisy environments"
- 20.<u>Hyungui Lim</u> and Kyogu Lee, "Deep learning-based chord prediction from melodic sequence"
- 21.<u>Jessada Karnjana</u> and Masashi Unoki, "An SSA-based audio watermarking scheme with automatic frame detection"
- 22.<u>Cesar Salvador</u>, Shuichi Sakamoto, Jorge Trevino and Yôiti Suzuki, "Analytic filters for sound field recording with a rigid spherical microphone array"
- 23.<u>Jorge Trevino</u>, Sakamoto Shuichi and Yôiti Suzuki, "Recording extended sound fields using compact arrays and a-priori knowledge of sound source positions"
- 24.<u>Taku Shimizu</u>, Jorge Trevino, Shuichi Sakamoto, Yôiti Suzuki and Tomohiko Ise, "Multi-user sound field reproduction system including distance information"
- 25.<u>Virgilijus Braciulis</u>, Jorge Trevino, Cesar Salvador, Shuichi Sakamoto, Yôiti Suzuki, Kyoji Yoshikawa, Takashi Yamasaki and Ken'ichi Kidokoro, "Spatial sound source extraction using an array-of-arrays"
- 26.<u>Hironori Sato</u>, Arif Wicaksono, Shuichi Sakamoto, Cesar Salvador, Jorge Trevino and Yôiti Suzuki, "Signal compression for spherical microphone array recordings using eigenvalue decomposition"
- 27.<u>Yukio Iwaya</u>, Hikaru Kikuchi, Masaki Tsuchiya, Ozaki Yusuke and Akio Honda, "Detection threshold of pure tone during sound localization with head movement"
- 28.<u>Shuhei Ito</u>, Sakiko Tokoro, Yukio Iwaya, Makoto Otani and Takao Tsuchiya, "Effects of color information on perception of reverberation"
- 29.<u>Sayaka Tsunokake</u>, Akio Honda, Yôiti Suzuki and Shuichi Sakamoto, "Sound localization acuity at the subjective front during passive slow horizontal rotation"
- 30.<u>Zhenglie Cui</u>, Shuichi Sakamoto and Yôiti Suzuki, "The effect of vertical vection on vertical sound localization"
- 31.<u>Ryo Teraoka</u> and Wataru Teramoto, "Touch-contingent visual motion perception"
- 32.<u>Hiroyuki Yagyu</u>, Shuichi Sakamoto, Zhenglie Cui, Yôiti Suzuki and Jiro Gyoba, "Effects of vibration generated by auditory information on perceived sense of reality from multimodal contents"