InterSinging 2010
First interdisciplinary workshop on singing voice
1-2 October, 2010
The University of Tokyo, Tokyo, Japan

Conference Program

http://www.intersinging.org/
Welcome Message

Welcome to the first interdisciplinary workshop on the singing voice, InterSinging 2010.

It is symbolic to start this interdisciplinary workshop here in Japan in 2010. Here is some background. The recent surge in social recognition of artificial singers in Japan is regarded as a historical landmark in singing voice applications. "Hatsune Miku," an artificial singer based on Vocaloid technology, won first place in the Japanese weekly hit-chart in 2010, three years after her debut August 31, 2007. The first day of the workshop highlights technological aspects of artificial singing voice systems. Dr. Masataka Goto presents an invited talk on the grand design and current state of the art in singing information processing systems.

Advances in such applications force requirements on quality, naturalness, authenticity, expressivity etc. of artificial or processed singing voices toward higher standards. Deeper understanding of singing voice production as well as perception has to be sought in collaboration with physiology, psychology, physics and signal processing researchers. The second day of the workshop highlights production, perception and signal processing aspects of the natural singing voice. Prof. Ken’ichi Sakakibara presents an invited talk on recent advances in physiology and physics of voice production.

Together with these presentations, hands-on demonstrations of cutting edge singing voice systems and tools provide you a chance to foresee what may happen in coming years. Two open discussion sessions also provide you with a chance to introduce your ideas and hopes for future research and development directions. And so, your participation is very important.

As the chair of InterSinging2010, I deeply appreciate your interest and lively participation.

Hideki Kawahara
Chair of InterSinging2010
Conference Program

1st October (Friday)

13:10 Registration starts
13:30 Opening remark: Hideki Kawahara (Wakayama University, Japan)
14:30 ”VOCALOID and Hatsune Miku phenomenon in Japan”, Hideki Kenmochi
   == short break ==
15:10 ”Automatic Song Composition from Japanese Lyrics with Singing Voice Synthesizer” Satoru Fukayama, Kei Nakatsuma, Shinji Sako, Takuya Nishimoto, Nobutaka Ono and Shigeki Sagayama
15:40 ”A Singing Robot Realized by a Collaboration of VOCALOID and Cybernetic Human HRP-4C” Makoto Tachibana, Shin’ichiro Nakaoka, Hideki Kenmochi
   == short break ==
16:10 Hands-on demonstrations on singing voice systems
   • Orpheus: Satoru Fukayama, Takuya Nishimoto and Shigeki Sagayama (University of Tokyo, Japan)
   • SingBySpeaking: Takeshi Saitou (Kanazawa University, Japan), Masataka Goto (National Institute of Advanced Industrial Science and Technology (AIST), Japan), Masashi Unoki (JAIST, Japan) and Masato Akagi (JAIST, Japan)
   • TANDEM-STRAGIGHT and multi-aspect morphing for singing voice: Hideki Kawahara (Wakayama University, Japan)
   • Vocal Dynamics Controller: Yasunori Ohishi (NTT Communication Science Laboratories, Japan)
   • VocaListener: Tomoyasu Nakano and Masataka Goto (National Institute of Advanced Industrial Science and Technology (AIST), Japan)
17:10 Discussions on singing voice technologies
2nd October (Saturday)

9:10  [Invited talk] ”Physiological basis of singing voice”: Ken-ichi Sakakibara
       (Health Sciences University of Hokkaido, Japan)

10:00 ”Vocal fold vibration in lamenting, speaking and singing” Margarita
       Mazo, Ken-ichi Sakakibara, Hiroshi Imagawa, Niro Tayama and Donna
       Erickson

== short break ==

10:40 ”Linguistic and Para-Linguistic Mechanisms of Production in Human
       □ Beatboxing □: a Real-time Magnetic Resonance Imaging Study” Michael
       Proctor and Shrikanth Narayanan

11:10 ”Ah, how sweet the sound: Some acoustic characteristics of emotionally
       sung /ah/” Donna Erickson, Tomoe Suzuki, Kayo Tanosaki, Kuniyo Yahiro,
       Eri Haneishi & Hiroko Kishimoto

== short break ==

11:50 ”Singing Voice Enhancement for Monaural Music Signals Based on
       Multiple Time-Frequency Analysis” Hideyuki Tachibana, Nobutaka Ono,
       Shigeki Sagayama,

12:20 ”Resurrecting past singers: Non-Parallel Singing-Voice Conversion”
       Fernando Villavicencio, Hideki Kenmochi

13:00 Discussions for future plan

13:20 Closing remark
Chair

Hideki Kawahara, Wakayama University, Japan

Local Organizing Committee

Takeshi Saitou, Kanazawa University, Japan
Kenichi Sakakibara, Health Sciences University of Hokkaido, Japan
Nobutaka Ono, University of Tokyo, Japan
Donna Erickson, Showa University of Music, Japan
Tomoyasu Nakano, AIST, Japan
Yasunori Ohishi, NTT, Japan