

**Proceedings of the  
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Auditory Display**

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**Advanced Telecommunications  
Research Institute (ATR)**

**Kyoto, Japan**

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## **Corporate and Institutional Support**

The ICAD 2002 organizing and program committee is grateful to the following organizations for their support in organizing the conference:

**The Acoustical Society of Japan**

**Japanese Society for Artificial Intelligence**

**The Society for Art and Science**

**IEEE Kansai Section**

**The Virtual Reality Society of Japan**

# FOREWORD

Welcome to ICAD2002

Welcome to Japan and welcome to Kyoto. We would like to extend to you a very warm welcome to the Eighth International Conference on Auditory Display (ICAD2002), held at Advanced Telecommunications Research Institute situated in the Keihanna Gakkentoshi research district, Kyoto, Japan. It is a very great honor for us to hold the conference and it give us considerable pleasure to do so.

ICAD is the premier forum for presenting research on the use of sound to provide enhanced user interfaces, display data, monitor systems, and for computers and virtual reality systems. It is unique in its singular focus on audio and the array of perception, technology, design and application areas that it currently encompasses.

ICAD 2002 has special meaning from two points of view. First, this is the tenth anniversary of the birth of ICAD. Ten years ago, Dr. Gregory Kramer and other founding members established the International Community for Auditory Display, and held the first conference (ICAD '92) at the Santa Fe Institute, Santa Fe, USA. Since then, the conference continues to focus on the unique research area of auditory display.

Secondly, this is the first ICAD held in Asia. Because almost all the participants belong to USA and Europe academia, the past ICAD events were held only in US and Europe. Recently, however, as more and more people attend from Asian countries, we proposed to the ICAD Board the idea of holding ICAD 2002 in Japan and obtained their agreement. Here we want to express our thanks to the ICAD Board members for their decision and their moral and practical support for ICAD2002.

The papers cover an impressive array of topics across a diverse spectrum of auditory display. We hope you appreciate the efforts the authors have made on their papers. The paper selection was based on extended abstracts, which

were submitted electronically. All submitted papers were reviewed by three expert reviewers. Based on the review results 36 papers were selected for aural presentations and 40 papers for posters. We would like to thank the international reviewers for their efforts.

The ICAD 2002 is a four day conference. On the first day we provide four interesting tutorials for you that will cover the cutting edge topics in this area. In the succeeding three days, there will two keynote speeches, by Dr. Gregory Kramer and Professor Yoshio Yamazaki, aural sessions, panels and demonstrations.

In addition to the specific program, we have arranged a number of social events to facilitate informal communications between the participants. There will be a banquet with special concert. Also there will be a lab tour of ATR and sightseeing tour to Nara.

On behalf of the organizing committee and others who have worked for the ICAD 2002, we wish you a most rewarding and enjoyable conference.

Ryohei Nakatsu  
ICAD 2002 Chair

Hideki Kawahara  
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Rodney Berry, Tadao Maekawa and Akiko Masuda  
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Malcolm Slaney

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