



International Conference on Music Perception and Cognition



The Asia-Pacific Society for the Cognitive Sciences of Music



The Japanese Society for Music Perception and Cognition

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The Joint Conference

The 17th International Conference on Music Perception and Cognition

The 7th Conference of the Asia-Pacific Society for the Cognitive Sciences of Music



August 24-28, 2023

College of Art, Nihon University

KEYNOTES



Elizabeth H. Margulis

Memory-Imagination
Loops in Music
Listening



Kenji Kojima

The world of game
audio making: to
be beyond the real



Eckart Altenmüller

Music loops in the
brain: plasticity of
brain networks in
music production
and perception



Rie Matsunaga

How infants
bootstrap acquiring
culture-specific
tonal schemas

Important Dates for Participants

- ◆ Early Bird Registration Deadline: May 18, 2023
- ◆ Submissions of the Structured Abstract or Full Paper: by June 1
(For Young Researcher Award: May 15)
- ◆ Regular Registration Deadline: July 31, 2023

For More Details...

- ◆ Visit our Website:
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- ◆ Updates and Tips
on Twitter: [@icmpc17](https://twitter.com/icmpc17)



Keynote Speakers



Elizabeth Hellmuth Margulis | Memory-Imagination Loops in Music Listening

Music can evoke a range of imaginings from autobiographical memories to fictional scenes, responses that have often been considered in separate streams of research. But given the amount of imagining involved in remembering, and the amount of remembering involved in imagining, the loops between these processes seem worthy of further examination. Because music depends on repetition, and changes dynamically across time, it reveals memory-imagination loops that might be obscured in other contexts.



Kenji Kojima | The world of game audio making: to be beyond the real

“piko piko” is one of the very best-known onomatopoeias in Japan for describing the game music and SFX. In past days, we could only use a simple tone generator and its sound, but nowadays we can use high quality sound devices and advanced techniques such as wave acoustics simulation. I would like to show you how to make game audio in the viewpoint of the workflow and techniques. The workflow and techniques used in games is similar to that of CG movies, but different, and games are characterized by their interactive nature.



Eckart Altenmüller | Music loops in the brain: plasticity of brain networks in music production and perception

In my keynote lecture, I will demonstrate and deepen the new neuroscientific paradigm of network- and loop activities in the central nervous systems as a correlate of music perception and music production. Specifically, I will demonstrate how the sensory-motor loops and the emotional loops are intertwined and subject to brain plasticity, to adaptations of the central nervous system to specific and challenging demands. I will then show how early training, before the age of 7 will have a different impact on brain plasticity, leading to optimization of network activity and effortless learning. This “metaplasticity” is the prerequisite to “artistic perfection”. Musician’s dystonia, the deterioration or failure of motor control in professional musicians is the dark side of plasticity. Genetic predisposition, early childhood trauma, dysfunctional working behavior, excessive practicing and muscular overload may lead to an imbalance of inhibition and activation in auditory-sensory-motor loops and probably also in emotional networks. Here I will also exemplify the different treatment approaches and suggest an agenda to prevent musician’s dystonia in young, dedicated musicians.



Rie Matsunaga | How infants bootstrap acquiring culture-specific tonal schemas

In every culture, listeners are exposed to their own native music from birth and acquire complex and sophisticated culture-specific ‘tonal schemas’. The tonal schemas refer to procedural knowledge to perceptually organize constituent pitches of a tone sequence as a coherent psychological entity (so-called musical Gestalts). One of the essential characteristics of the tonal schemas is a regularity relevant to the ‘musical scales’ of one’s culture. Little is known about how listeners acquire the tonal schemas. Undoubtedly, the acquisition does not necessitate explicit and direct instruction from adults. Nor can it be accomplished by physical feature detection processing, as suggested by the fact that the musical scales of all cultures represent the relative pitch relations within a set of constituent notes of each melody, not the absolute tone heights of them. This makes the acquisition process not so simple. Nevertheless, empirical studies have revealed that human infants unconsciously learn the culture-specific scale regularity at a remarkable speed through relatively little exposure to music. In this talk, I will show what scaffolding helps connectionist infants to bootstrap the learning of the scale regularity, and then I will discuss how this learning is motivated by the interplay of domain-general learning mechanisms and perceptual properties embedded in conventional melodies of one’s own culture.

Program Committee

Makiko Sadakata (University of Amsterdam, *Chair*)

Minoru Tsuzaki (Kyoto City University of Arts, *Vice-Chair*)

Organizing Committee

Masanobu Miura (Kunitachi College of Music, *Chair*)

Hiroshi Kawakami (Nihon University, *Vice-Chair*)

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