

BEYOND PERFORMANCE AND CHALLENGES FOR THE FUTURE

Juan-Pablo Cáceres

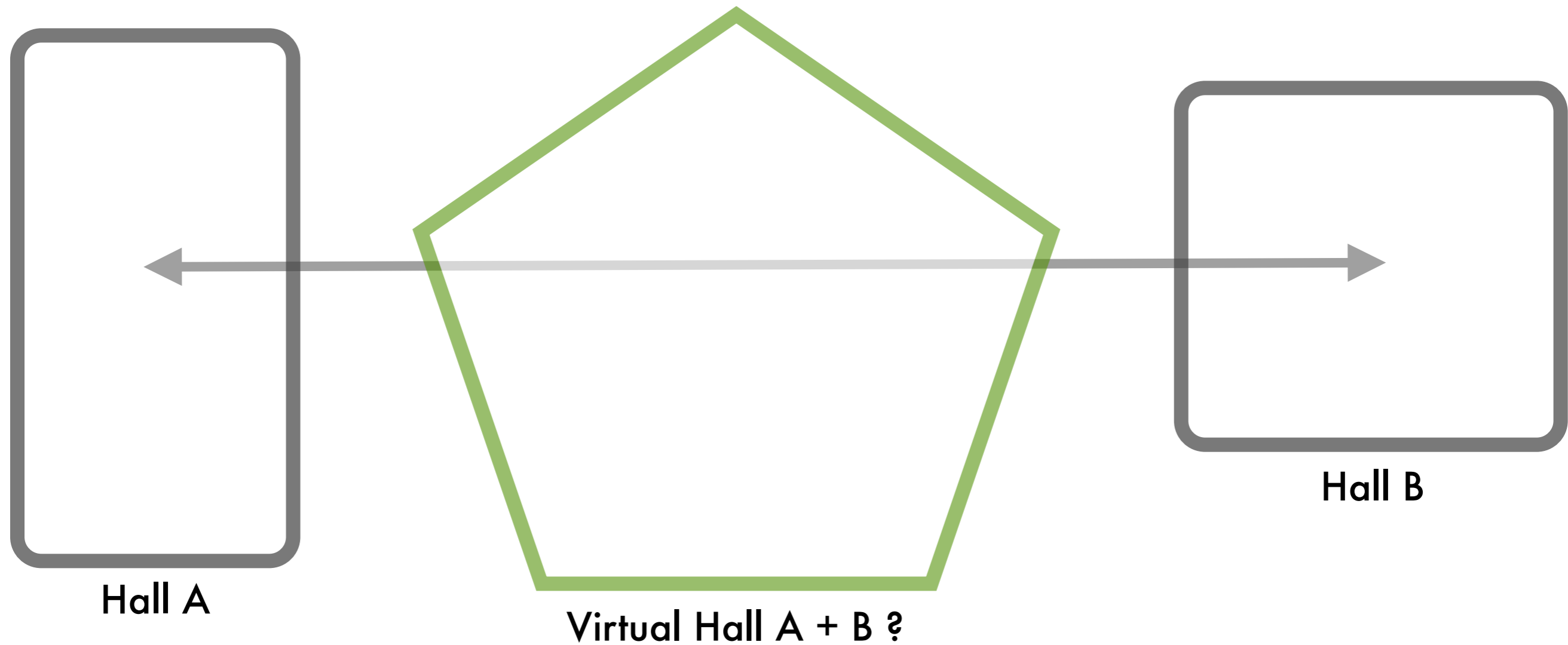
Network Sound and Data

Center for Computer Research in Music and Acoustics (CCRMA)

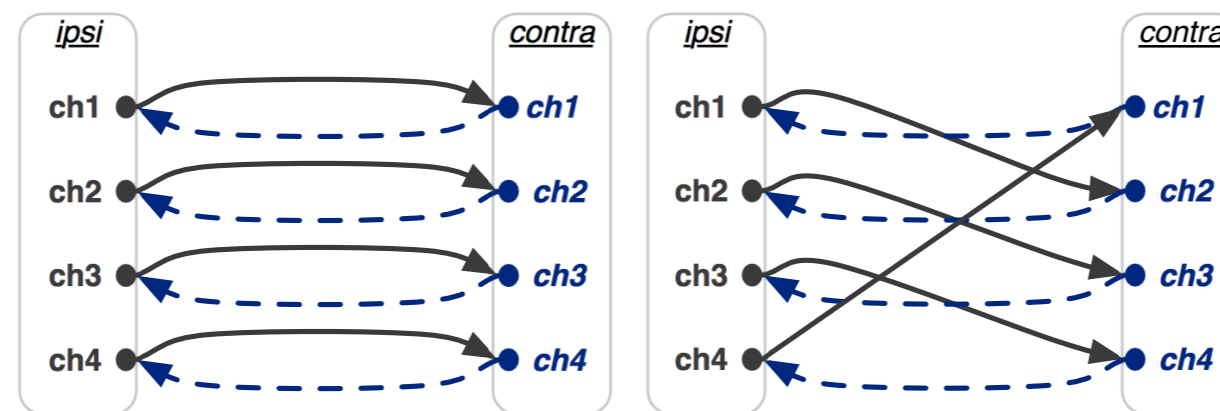
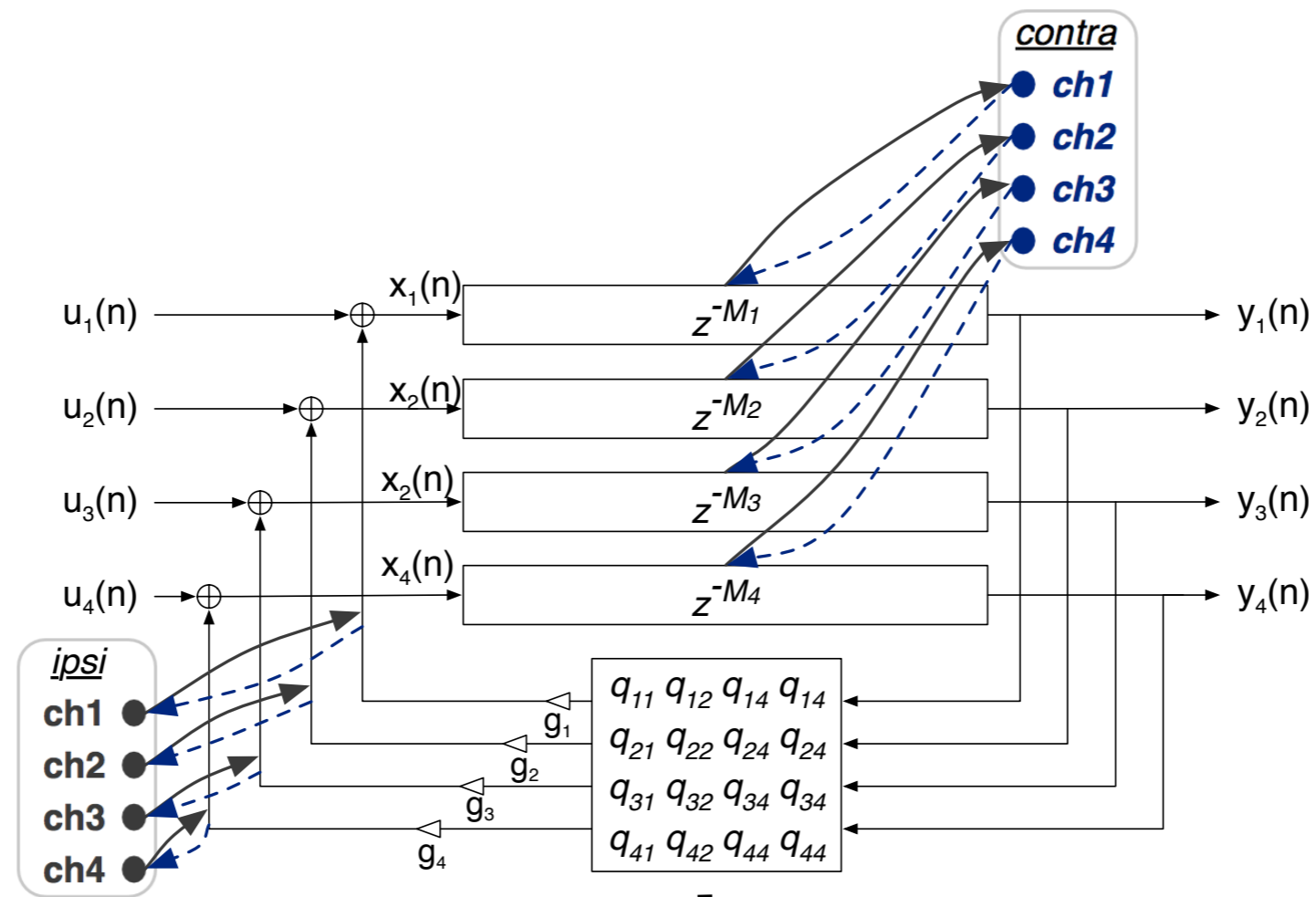
Stanford University

Acoustics Extension

Remote Acoustics: the Meta-Hall



Acoustics Extension: Effects *IN* the Network



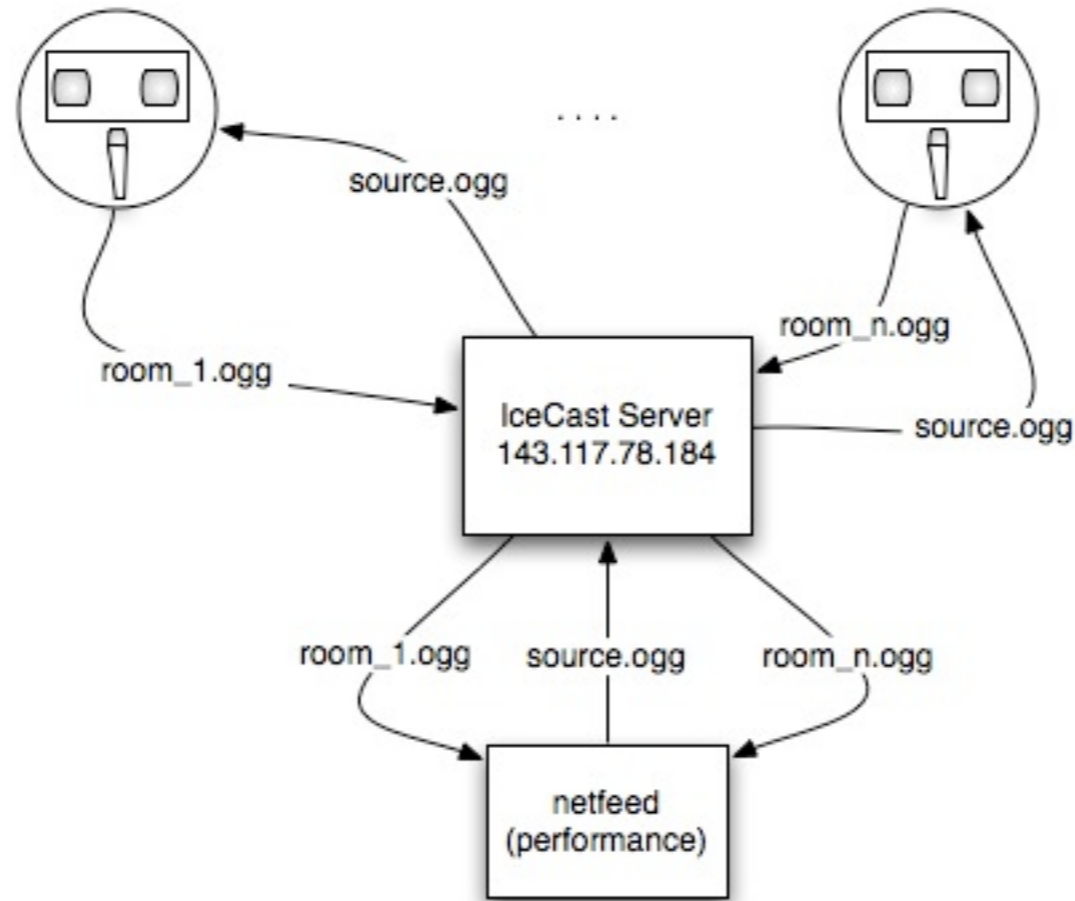
a) No spatialization

b) Spatialization example



Net vs. Net - Drony Feeds Back

NetRooms The Long Feedback netrooms.wordpress.com

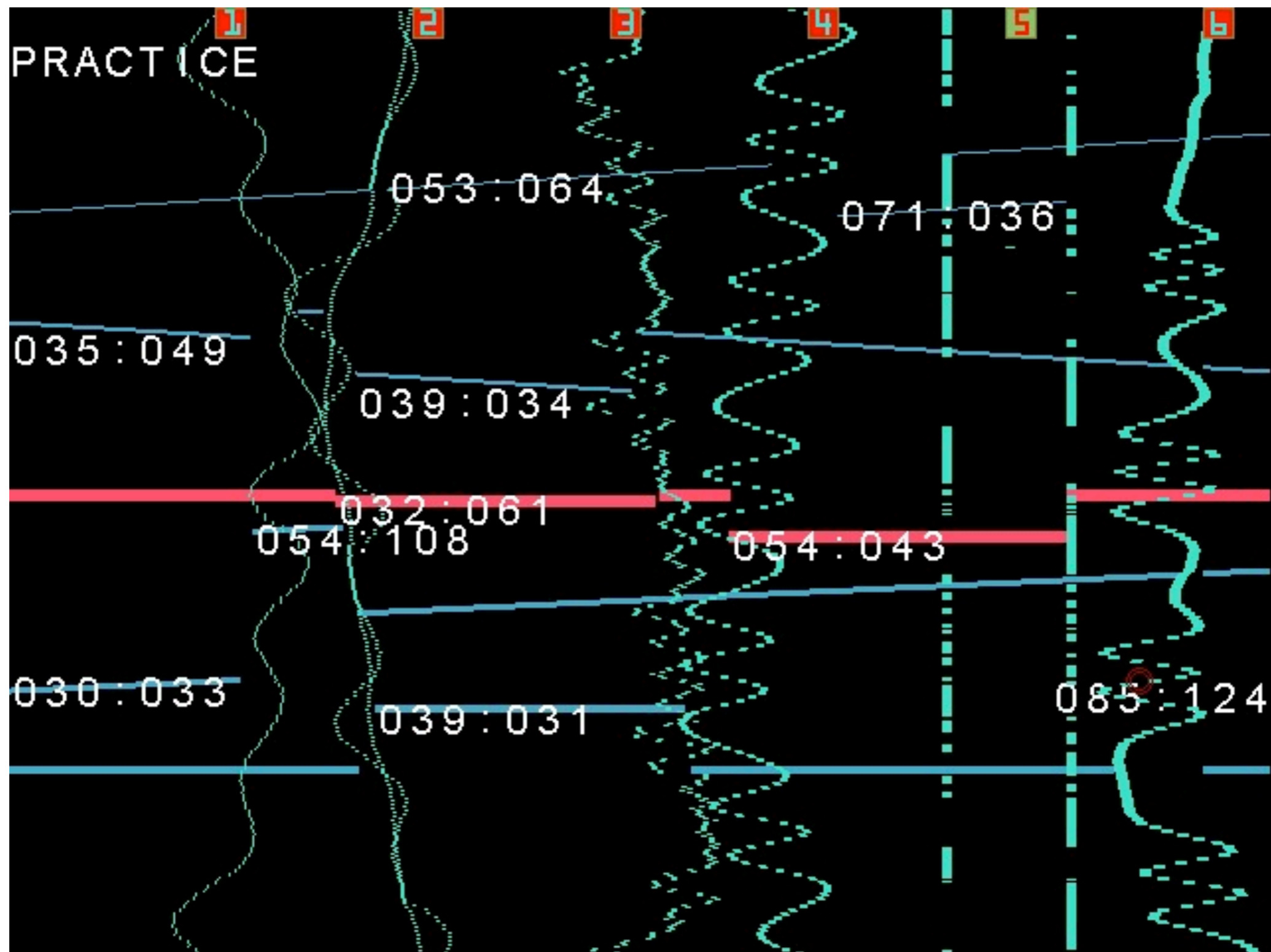


IO Matrix with amplitude control and channel filtering



Pedro Rebelo

Collaborative Environments



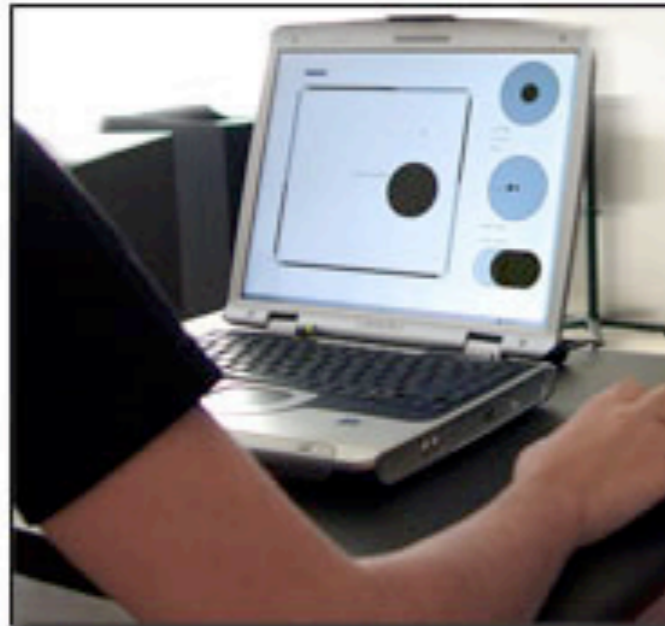
Sergi Jorda's FAUST



Jorda's REACTABLE



PSOs DESKTOP



PSOs TOUCH-SCREEN



PSOs PDA



Barbosa's PSO

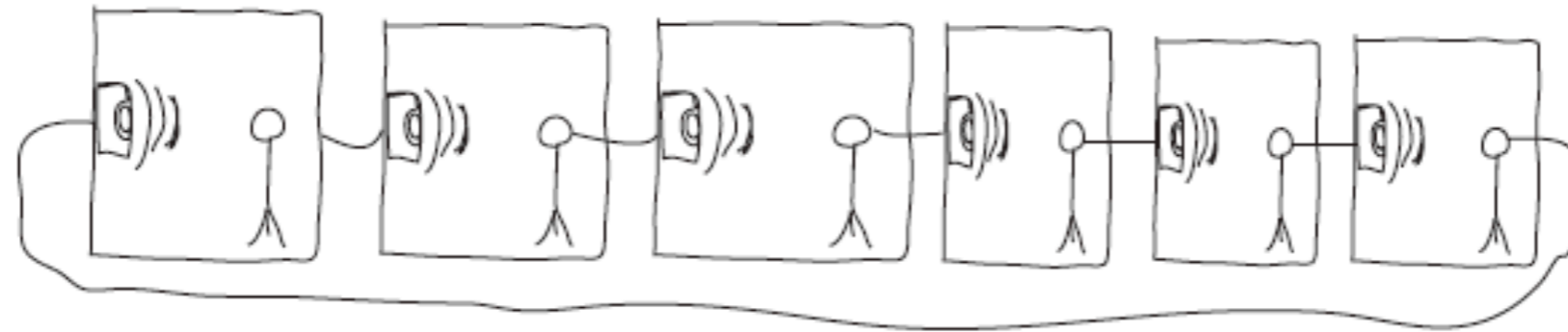
Art Installations



Chris Chafe & Greg Niemeyer - Ping

Juan-Pablo Cáceres | CCRMA | Stanford University | jcaceres@ccrma.stanford.edu

'world without borders' - audio tunnel round the world



SUHJUNG, SEOUL



SHINJUKU, TOKYO



STANFORD, PALO ALTO



PONTY, JOHANNESBURG



SOLITUDE, STUTTGART


Cobi van Tonder - The Audio Tunnel

The Meta-Stage of the Future

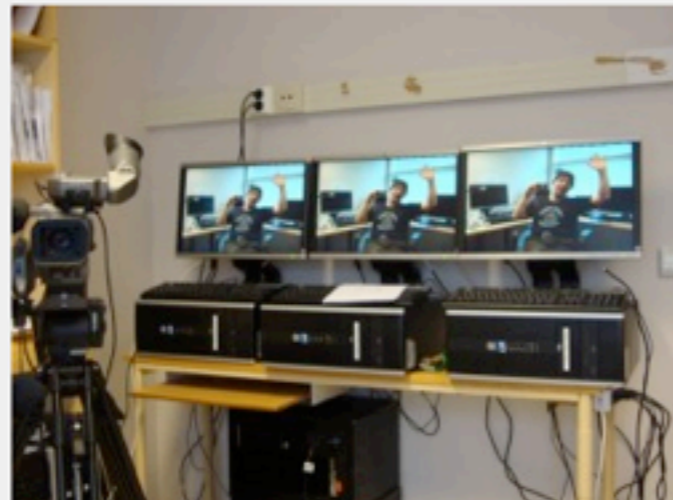
- ▶ [About the WOP](#)
- ▶ [Projects](#)
- ▶ [Discussions](#)
- [World Opera Symposium May 8-10, 2008](#)
- [2nd World Opera Symposium May 11-13, 2009](#)

Opera embraces almost all kinds of Arts and involve all kinds of artistic people. Throughout its more than 400 years old history, the Art of Opera has been developed through experiments and turned into many different traditions through time and space around the world

April World Opera Tests

 Tuesday, June 15, 2010 - 08:44

The World Opera, in association with our institutional, academic, government, and private partners, have just completed a three-month series of test implementing current and cutting-edge technologies for the distributed, interactive performance of operatic works in real-time across high-speed, high-performance audio/video networks. These tests occurred in at the Music Conservatory of the University of Tromsø during March, April, and May 2010.

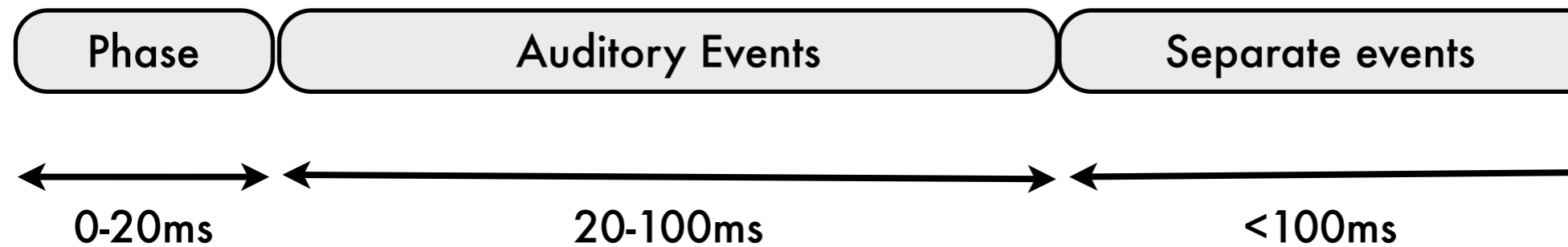


The April tests were caught off guard by the Eyjafjallajökull volcano in Iceland which prevented our partners from Simula contributing. We were hoping to work with Alex Eichorn and his students to implement his new two-way video portal and video server. Certainly we hope to revisit Alex's technology in the near future! Our tests were also limited by the availability of performing artists to participate. We were, however, happy to meet soprano Caroline Christensen who secured her vocal coach at the last minute, arranging an impromptu performance. Though the test was successful in that the network was eventually established (both audio and video), we again encountered problems across the network which appeared (again) to be port issues.

Ongoing Research - Prediction

Delay and Synchronization

Perception of temporal order

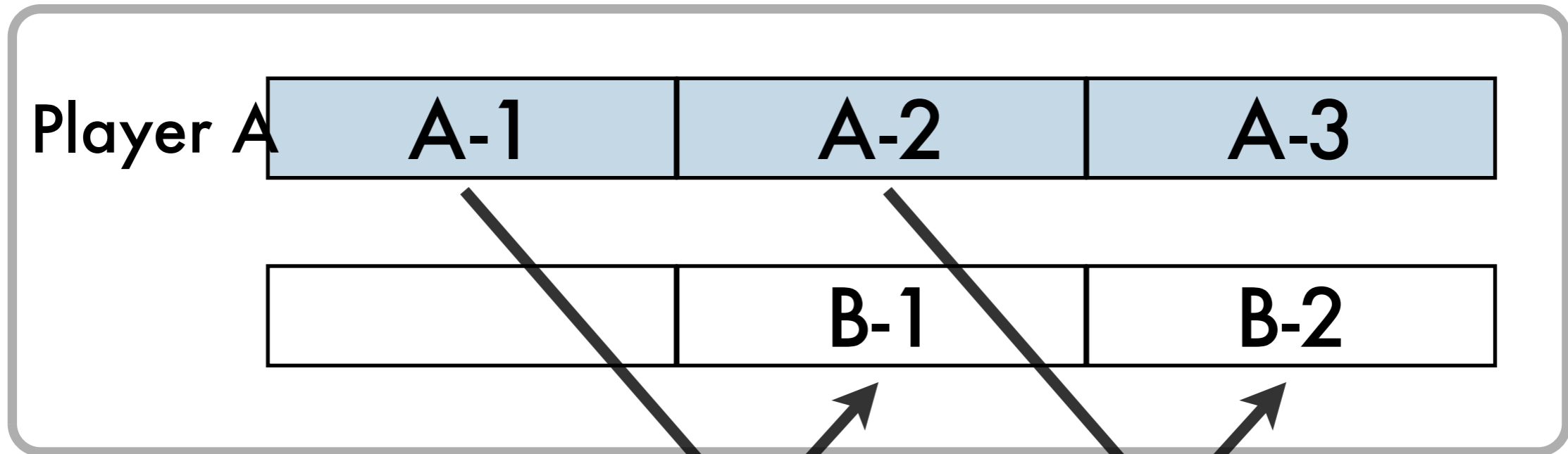


Range of interest

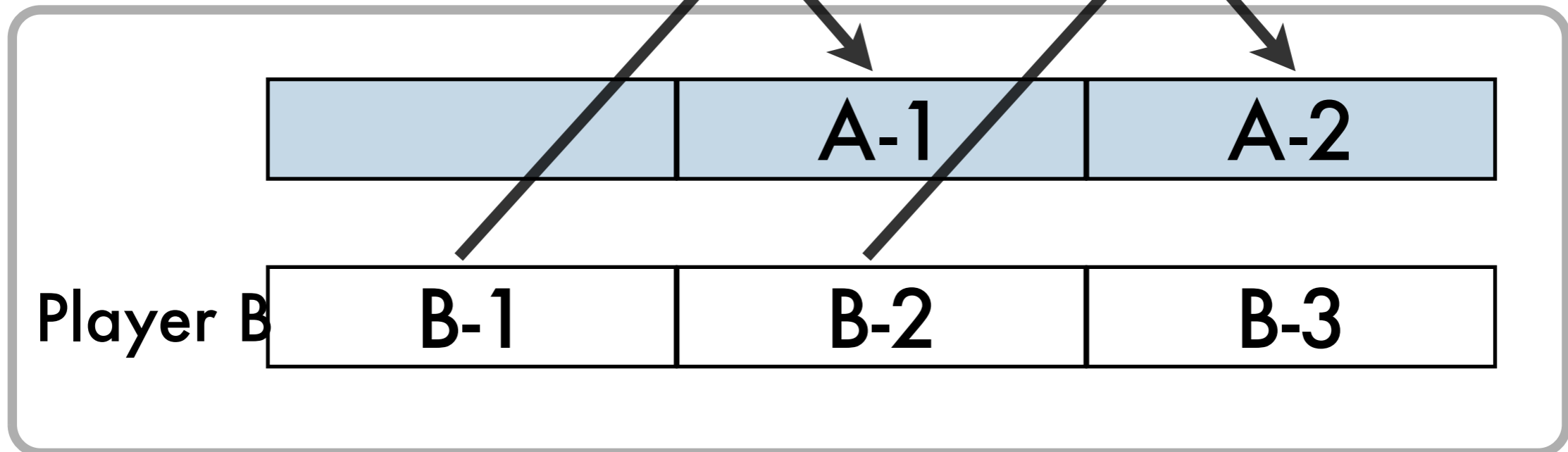
Sync Network Systems (one-phase delay)

NINJAM

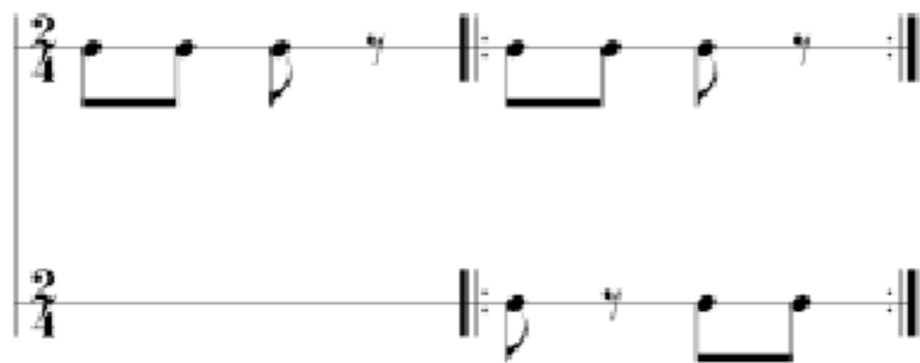
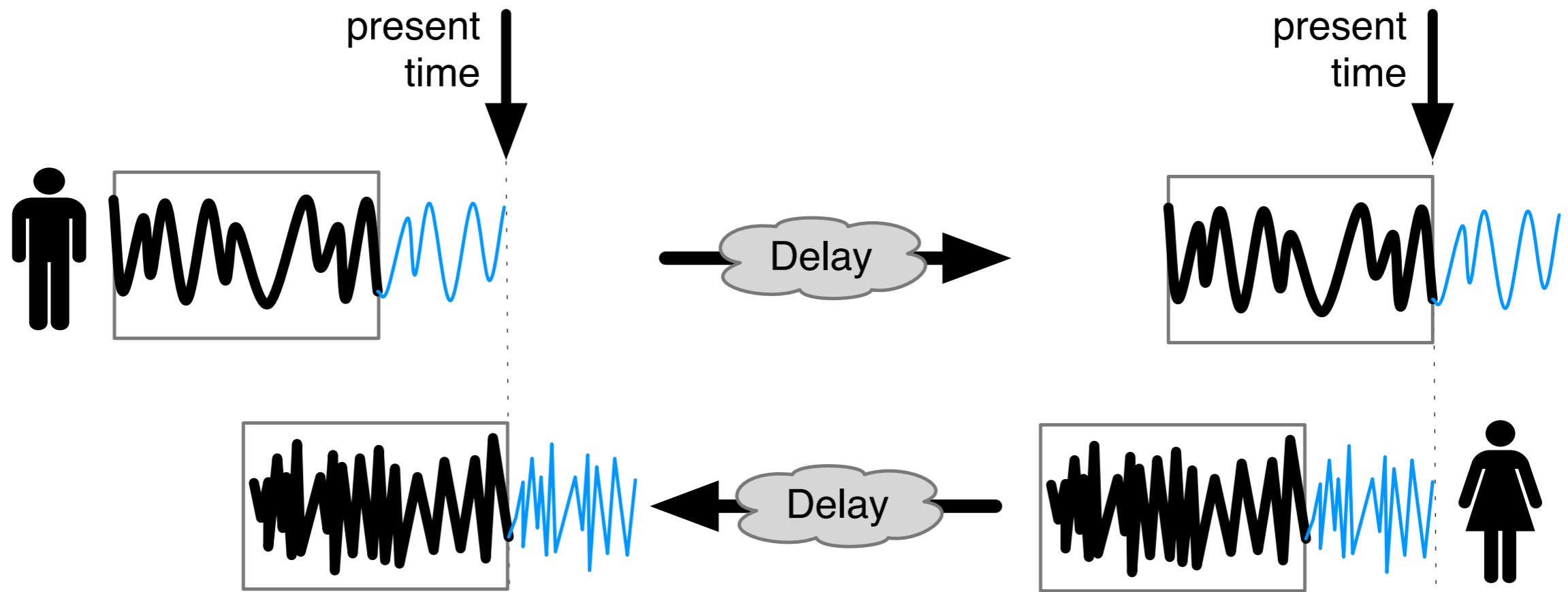
Site A



Site B

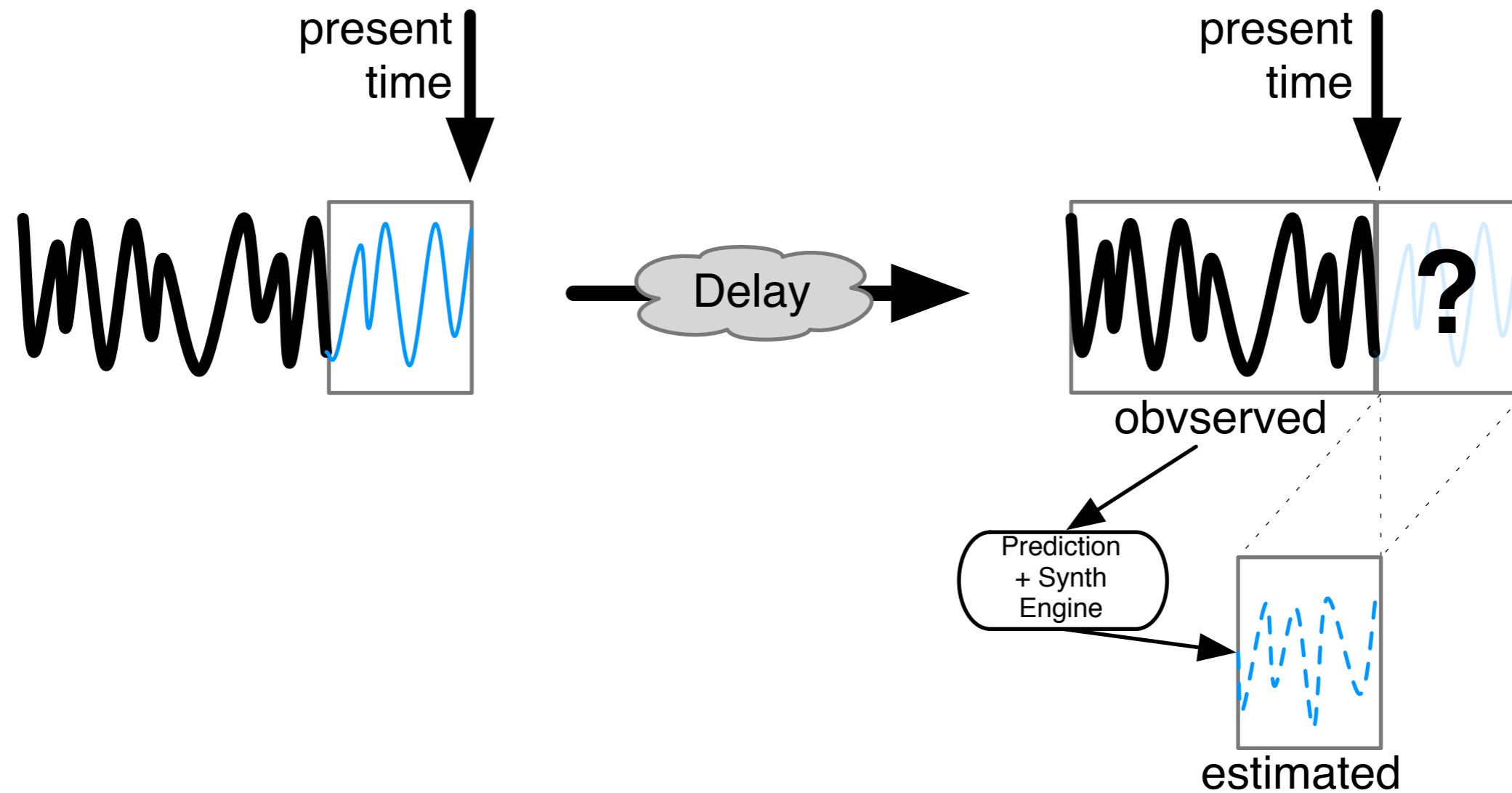


The Problem with Latency



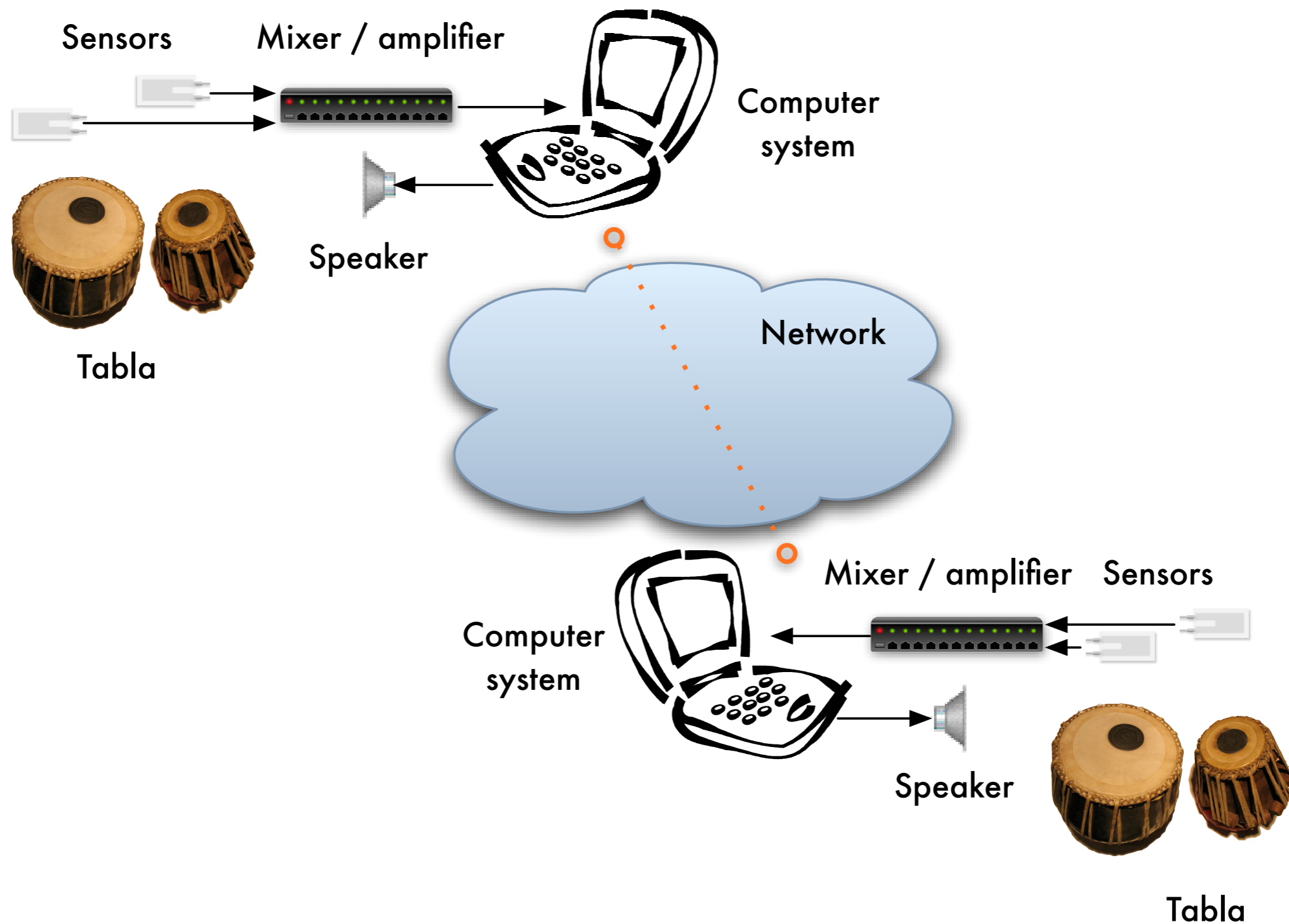
➔ **Ritardando**

Ideal Prediction Scenario



TablaNet - Mihir Sarkar

Grammars



Commercial Promise?

eJAMMING[®]AUDiiO

HOW PLAY AND RECORD TOGETHER LIVE WITH MUSICIANS ANYWHERE IN THE WORLD



“ Killer session man, how’s the gig in Tokyo? ”



“ Did I rip that track or what! ”



“ Chi-Town rocking the HOUSE!! ”



“ We should start a band! ”



“ Hello-o?! We need fills. ”

LEARN MORE

CLICK HERE TO DOWNLOAD

PLAY

RECORD

REHEARSE

SIGN UP

JAM LIVE WITH MUSICIANS ANYWHERE IN THE WORLD

TOGETHER **LIVE** ONLINE

30 DAY FREE TRIAL

<http://www.youtube.com/watch?v=GusCPIQ4GF0&feature=related>

Collaboration Environments

Ohm Studio - Future Collaborative Host Teaser

