Pandeiro Funk
Experiments on Rhythm-Based Interaction

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To make the computer listen and react to music in an improvisation situation
How I got here
Contemporary music

Popular music
Contemporary music

Popular music
DJ
Musicians
Visual

Auditive
Piece ending

Steve Coleman

Bata
How to communicate with the computer?
Make the computer

• Listen to attacks
Make the computer

• Listen to attacks
• Recognize the rhythmic phrase
Make the computer

- Listen to attacks
- Recognize the rhythmic phrase
- Interpret the commands
Make the computer

- Listen to attacks
- Recognize the rhythmic phrase
- Interpret the commands
- Generate an answer
Performance explanation
• Loops
• Loops
• Effects
• Loops
• Effects
• Samples
Modes of Interaction

Commands

Meta-Commands
• George Lewis’ Voyager
  Sequential Modes
• Rowe’s Cypher
• Belinda Thom’s BoB
  Player Paradigm
• Nick Collins BBCut
• UPF’s React Table
• Sergi Jordà’s Afasia
  Instruments
• Perry Cook’s percussion
• Gil Weinberg and Scott Driscoll’s Haile
• François Pachet’s Continuator
Goals

- A rhythm-based interactive system developed to music improvisation situations
- Performance-driven / Instrument-driven
- Audio-based system
- Applied to percussion
- Modes of interaction
- No external meta-commands (e.g. pedals, mouse, keyboard)
Future Work

- Misunderstanding
- Choosing Phrases
- Latency decrease with new processors
- Apply to other instruments
Funk Carioca Aesthetics

• 70’s Funk parties
• Club parties
• Violence
• Pornography as differentiation
• Makulele
• The first brazilian electronic genre
• Kuduro
Questions