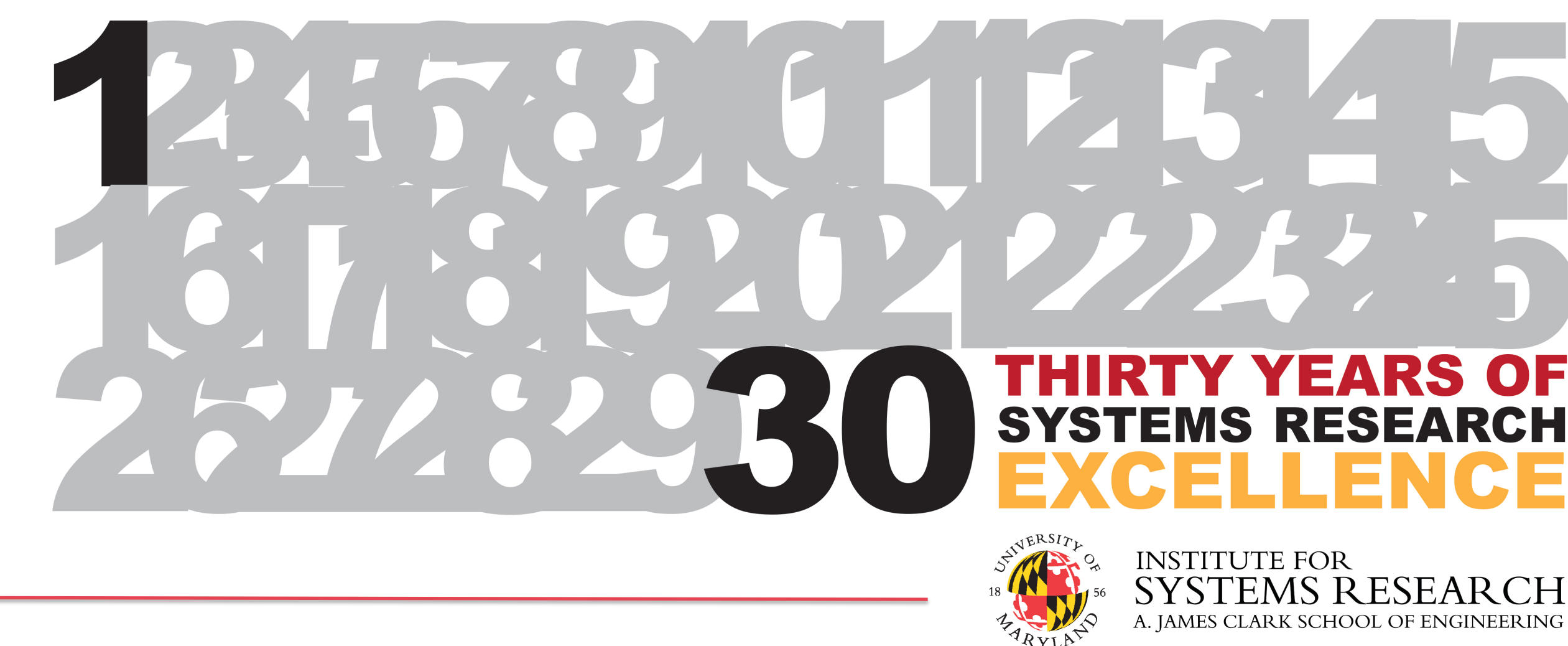


Exploring Auditory Processing & Applications

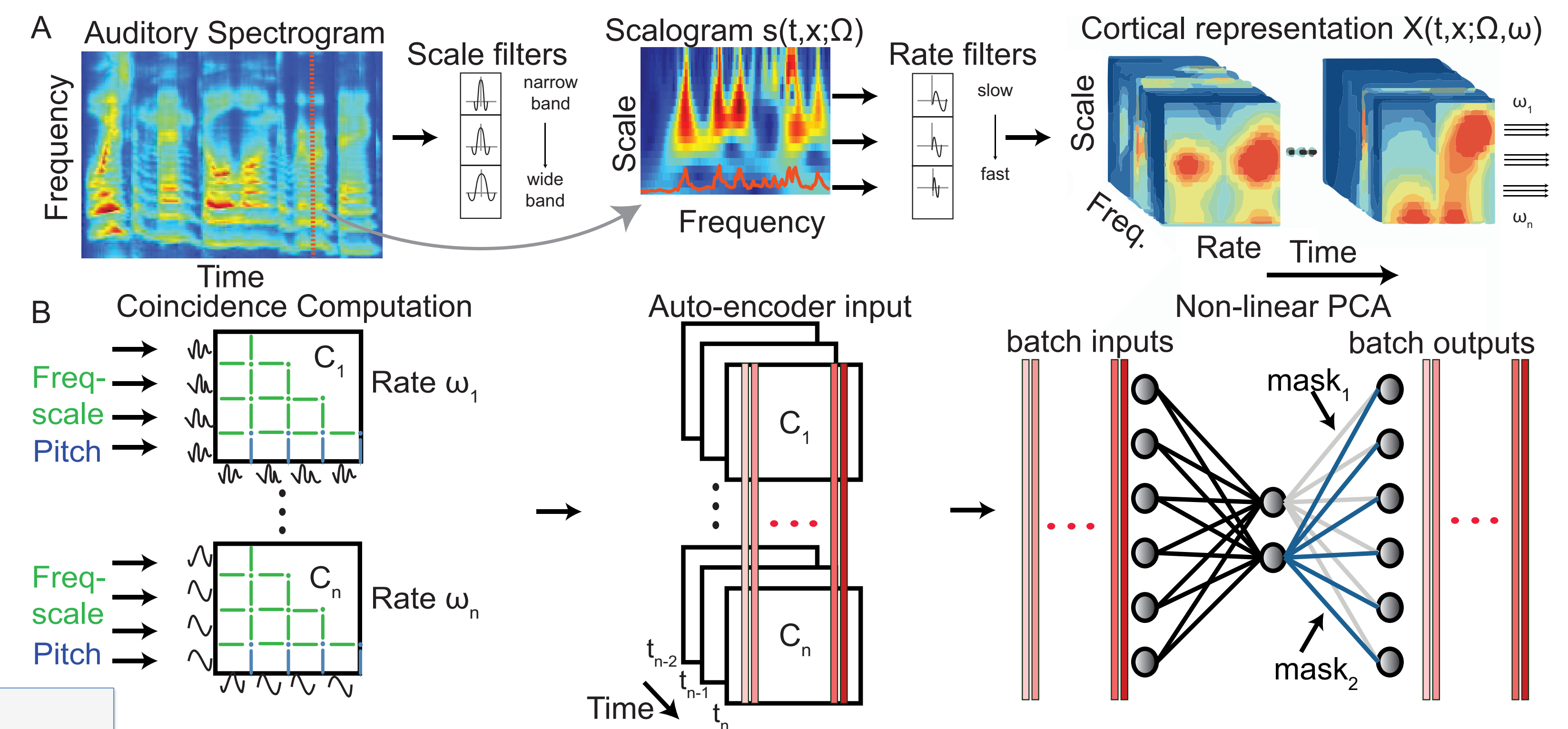
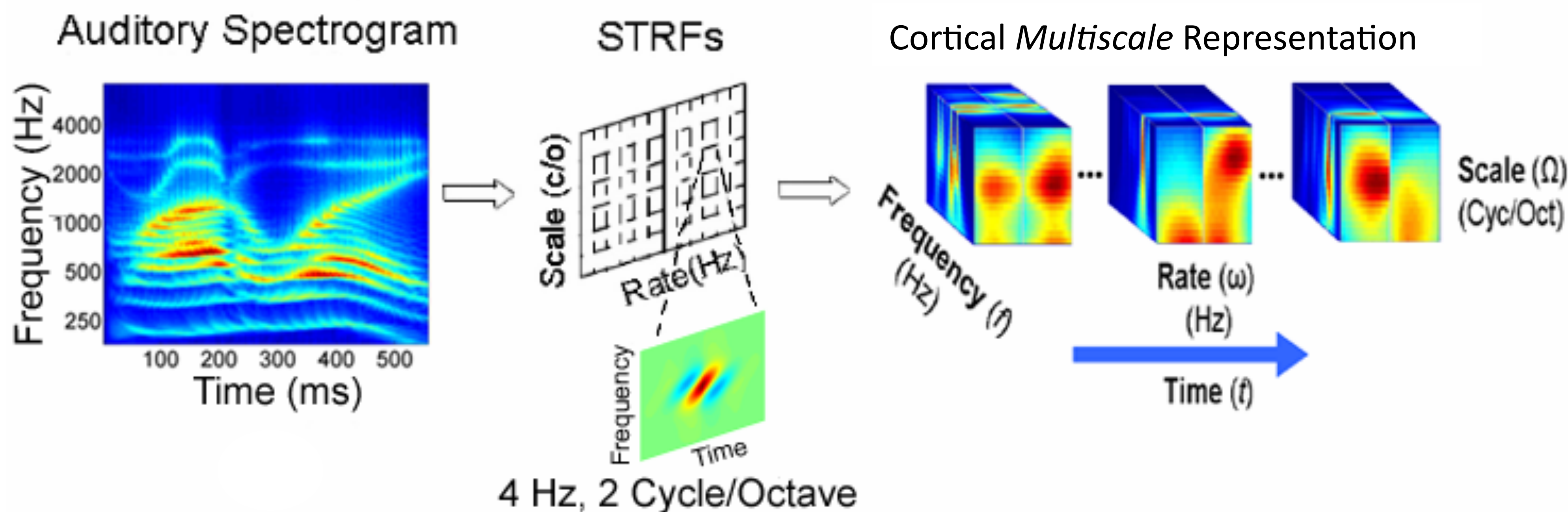
Shihab Shamma, P.S.Krishnaprasad, Timothy Horiuchi



Past: Models of auditory processing
Novel features for audio applications

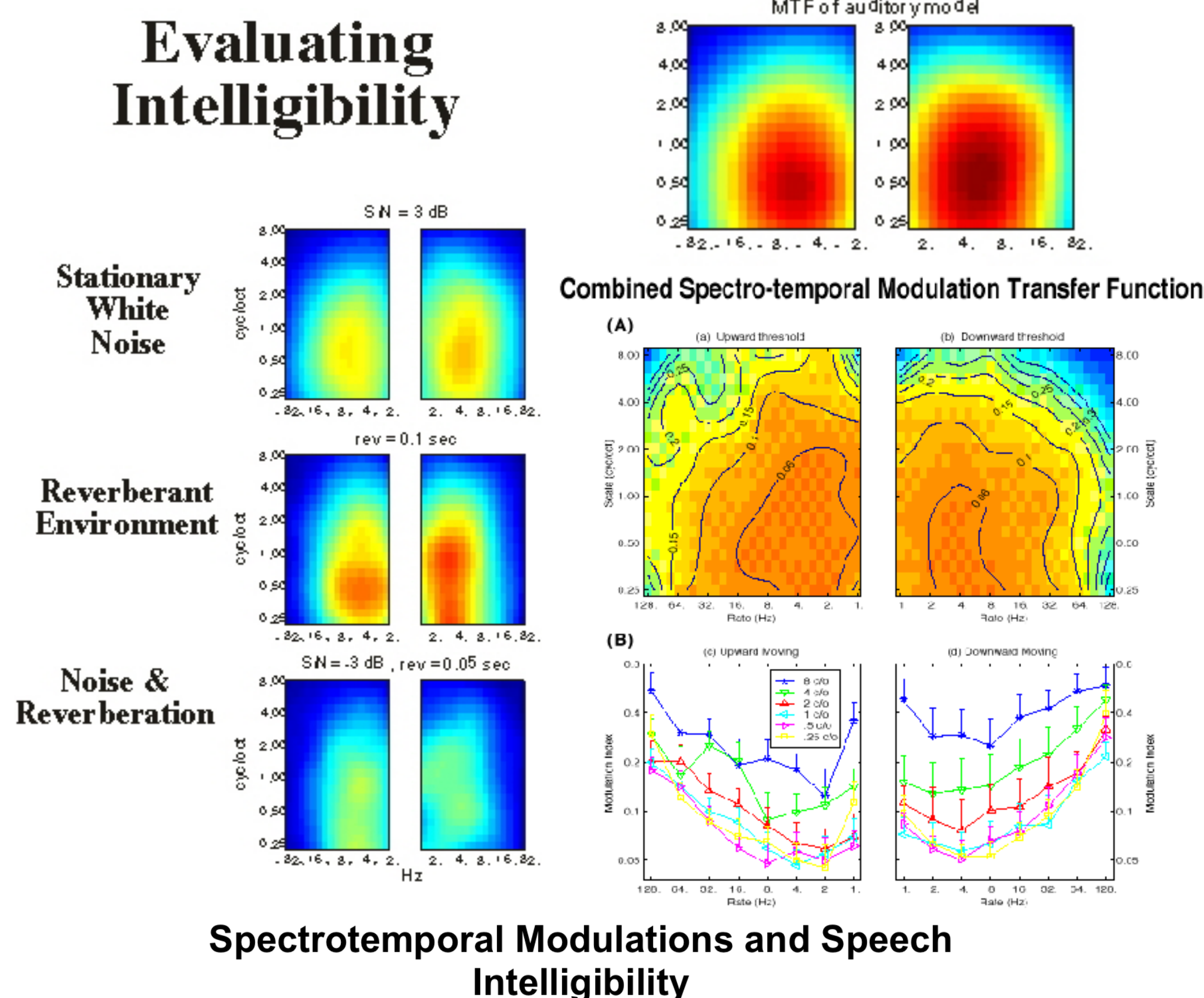
Future: Applications in auditory segregation
Intelligent hearing aids and prosthetics

Temporal Coherence and Scene Analysis

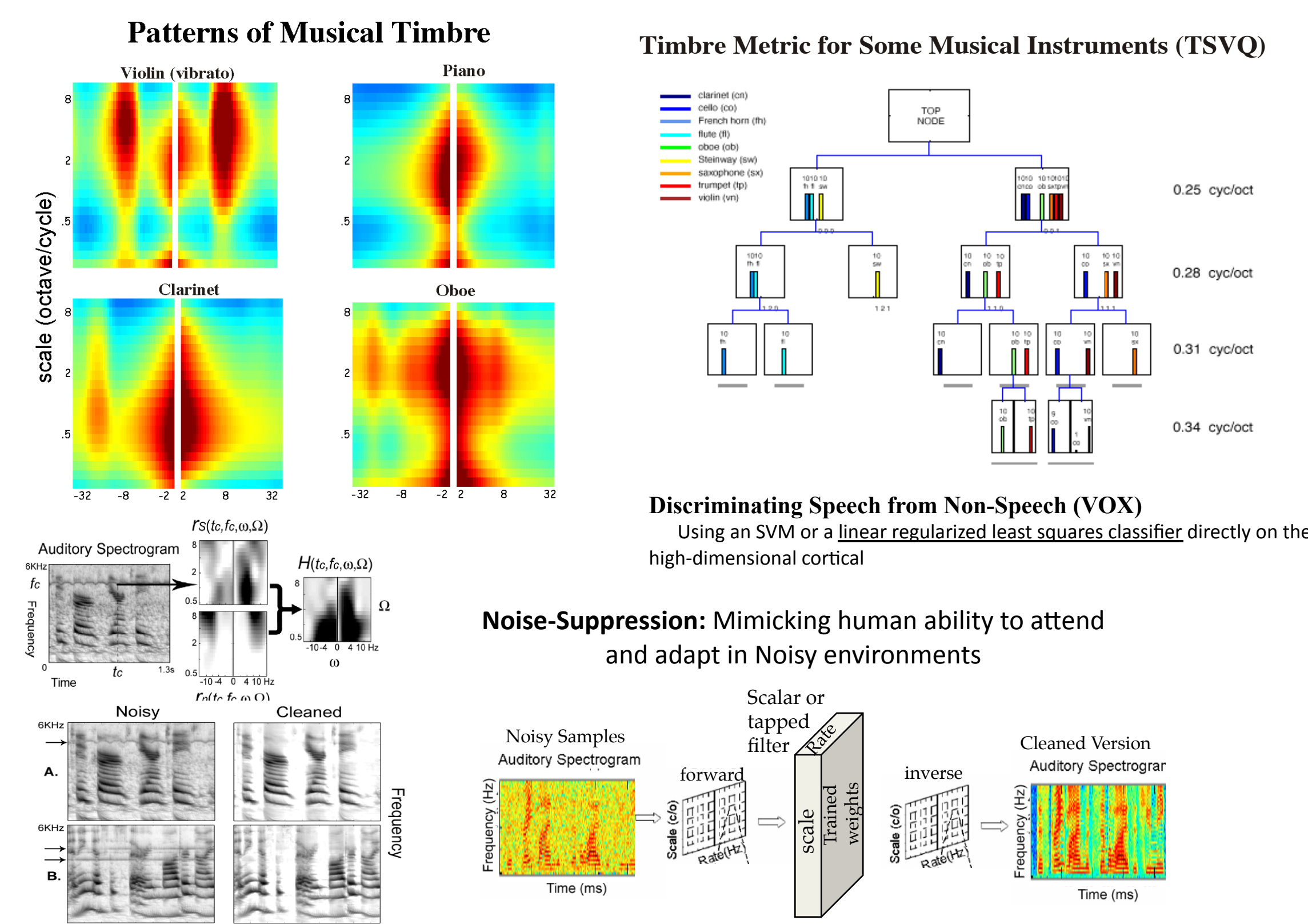


Present: Modeling of speech intelligibility and detection
State of the art applications in music and law enforcement

Integrated MEMS Sensors and aVLSI System Implementations



Classifying, Detecting, Denoising



Intelligent MEMS sensors & tracking robots
Platform-noise reduction algorithms
Hybrid digital and analog *neuromorphic* circuits
Cochlear chips and real-time cortical DSP

