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### Tuesday 8 July 2014 - Keynote lecture

#### Conference room

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#### Conference room

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### Conference room

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- 14:15** **Modification Design of Harmonic Sound Plate with Equal Width for Metallophone**  
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- 14:30** **Radiation Efficiency and Sound Field Measurements on Stringed Musical Instruments**  
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### Conference room

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### Conference room

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- 11:00 **New lattices of sound tubes with harmonically related eigenfrequencies**  
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- 11:00 **Numerical Computation of the Transfer Functions of an Axisymmetric Duct with the Extended Discrete Singular Convolution Method**  
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- 11:00 **Graph models of wind instruments : computing the natural frequencies of some elementary ducts**  
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- 11:00 **To what extent can a Linear Analysis predict the Behaviour of a Flute Model?**  
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- 11:00 **Experimental Study of Attack Transients in Flute-like Instruments**  
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- 11:00 **Several ways to stop a note in a clarinet - a comparative view of note extinctions**  
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- 11:00 **The irish Uilleann pipe: a story of lore, hell and hard D**  
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- 11:00 **Timbre Related Geometry Analysis of Classical Guitars**  
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- 11:00 **Assessing the homogeneity of guitar tones**  
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- 11:00 **Numerical Simulation of the Production of Pedal Notes in Brass Instruments**  
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- 11:00 **The influence of the cone parameters on the sound of conical woodwind instruments**  
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**Tuesday 8 July 2014 - Vibrating structures, Non-linearities and Excitation mechanisms****Poster room 2**

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- 16:00 **Bell Vibrations and How They Affect the Sound of the Modern Trumpet**  
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- 16:00 **Forced oscillation mode relations of acoustical guitars**  
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- 16:00 **How to apply a plaster on a drum to make it harmonic**  
S. Maugeais
- 16:00 **Modal Analysis of a Brazilian Guitar Body**  
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- 16:00** **Dependence of the acoustic power produced by a woodwind on the tonehole size**  
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- 16:00** **Non-Linear Behaviour in Sound Production of the Rhodes Piano**  
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- 16:00** **A Power-balanced Model of a Valve Exciter Including Shocks and Based on a Conservative Jet for Brass Instruments: Simulations and Comparison with Standard Models**  
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- 16:00** **Mechanical Analysis of the Voicing Process in the Harpsichord**  
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- 16:00** **Physical Modeling of Nonlinear Player-String Interactions in Bowed String Sound Synthesis Using Finite Difference Methods**  
C. Desvages and S. Bilbao
- 16:00** **Numerical Modeling of String/Barrier Collisions**  
S. Bilbao
- 16:00** **Classification of marimba mallets based on objective parameters measured with a striking apparatus**  
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### Wednesday 9 July 2014 - Keynote lecture

#### Conference room

Chair Persons: R. Caussé, S. Yoshikawa

- 8:45** **A "sound" choice: multi-criteria selection of material for instrument making from wood science viewpoint**  
I. Brémaud

### Wednesday 9 July 2014 - Materials for musical instruments

#### Conference room

Chair Persons: R. Caussé, S. Yoshikawa

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S. Yoshikawa and C. Waltham
- 9:45** **Mechanical Property Relationships in Sitka Spruce Soundboard Wood**  
P. Dumond and N. Baddour
- 10:00** **Poster presentation (1 minute per speaker)**  
 I. Brémaud, K. Buys, A. Falaize, G. Gidion, L. Jeanson, G. Le Vey and P. Lotton

### Wednesday 9 July 2014 - Instrument making

#### Conference room

Chair Persons: M. Curtit, J. Cottingham

- 10:45** **Rapid creation of tuning maps for a clarinet using analytic formulas**  
W. Coyle, J. Kergomard and P. Guillemain
- 11:00** **Monitoring of the making process of a handcrafted electric guitar**  
A. Paté, J.-L. Le Carrou, F. Teissier and B. Fabre
- 11:15** **Impedance Analysis on a Real Instrument and its Impact on the Manufacturing Process**  
J. Cottier, V. Gibiat and J. Selmer
- 11:30** **Comparison of clarinet making over time - Seeking correlations between the player's perception - intonation, timbre, response - and objective measurements**  
R. Caussé, V. Rosi and M. Jousserand

- 11:45 Evaluation and classification of steel string guitars using bridge admittances**  
V. Fréour, H. Mansour, C. Saitis and G. Scavone
- 12:00 May a bow buckle when playing violin?**  
F. Ablitzer, N. Dauchez and J.-P. Dalmont
- 12:15 Poster presentation (1 minute per speaker)**  
 F. Gautier, T. Meurisse, R. Thomazelli and J.A. Torres

### Wednesday 9 July 2014 - Materials for musical instruments and Instrument making Poster room 1

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 C. Carlier, I. Brémaud and J. Gril
- 10:45 Developing a hybrid wind instrument: using a loudspeaker to couple a theoretical exciter to a real resonator**  
K. Buys, D. Sharp and R. Laney
- 10:45 Evasive manoeuvres of bowed-string instruments: The effect of wolf suppressors on wolf tones**  
G. Gidion
- 10:45 Effect of the Ebony Crown on the Higher Register of the Classical Guitar**  
L. Jeanson and J.-F. Jarry
- 10:45 Graph-based model optimization of wind instruments: preliminary results**  
G. Le Vey and J.F. Petiot
- 10:45 Experimental Study of a Guitar Pickup**  
P. Lotton, B. Lihoreau and E. Brasseur
- 10:45 Passive simulation of electrodynamic loudspeakers for guitar amplifiers: a port-Hamiltonian approach**  
A. Falaize and T. Hélié

### Wednesday 9 July 2014 - Tools for instrument makers ITEM Hall

- 15:00 Low Cost TMTC-based Impedance Spectrometer as a Reference Tool for Instrument Makers**  
R. Thomazelli
- 15:00 Experimental Validation of Adjusting the Resonances of a Simplified Bass Clarinet Through Modal Active Control**  
T. Meurisse, A. Mamou-Mani, S. Benacchio, V. Finel, B. Chomette, R. Caussé and D. Sharp
- 15:00 Introducing Modal Analysis to Luthiers through an Experiment without Analyzer or Transducers**  
J.A. Torres and G. Chavero
- 15:00 The PAFI project : a collaborative approach for developing tools for instruments makers**  
 F. Ablitzer, E. Brasseur, R. Caussé, M. Curtit, J.-P. Dalmont, B. David, N. Démarais, V. Doutaut, B. Elie, P. Eveno, R. Feron, J.-M. Fouilleul, V. Fréour, F. Gautier, J. Gilbert and A. Le Duff

**Thursday 10 July 2014 - Keynote lecture****Conference room****Chair Persons: J.-C. Valiere, P. Hoekje**

- 8:45**    **An Acoustical Comparison of East Asian and Western String Instruments**  
C. Waltham

**Thursday 10 July 2014 - Cool instruments****Conference room****Chair Persons: J.-C. Valiere, P. Hoekje**

- 9:30**    **Comparative study on the timbre of occidental and African plucked string instruments**  
D. Cazau
- 9:45**    **Simple Plucked and Blown Free Reeds from Southeast Asia**  
J. Cottingham
- 10:00**   **The Zurna : an Ottoman Oboe**  
S. Le Conte and J.-P. Dalmont
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**Thursday 10 July 2014 - Impact excitation****Conference room****Chair Persons: X. Boutillon, M. Campbell**

- 11:00**   **Real-Time Physical Model of a Piano-Hammer String Interaction Coupled to a Sound-board**  
F. Pfeifle
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A. Thorin, X. Boutillon, J. Lozada and X. Merlhiot
- 11:30**   **Collisions in Drum Membranes: a preliminary study on a simplified system**  
A. Torin and M. Newton

**Thursday 10 July 2014 - Player gesture****Conference room****Chair Persons: X. Boutillon, M. Campbell**

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H. Biglari
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M. Frič and A. Kulanová
- 14:30** **Interplay between harmonics and formants in singing : when vowels become music**  
M. Castellengo and N. Henrich Bernardoni
- 14:45** **Positive Effect of Noise On Self-Perceived Vocal Control**  
T. Magram, N. Amir and R. Granot
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O. Takada
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M. Carvalho, P. Ji, G. Lafay, Z. Otcenasek, H. Tahvanainen, R. Tournemenne and H.T. Tuomi-  
nen

**Thursday 10 July 2014 - Perception****Conference room****Chair Persons: A. Almeida, C. Fritz**

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- 16:15** **Old Italian versus new violins: the soloists' perspective**  
C. Fritz, J. Curtin, J. Poitevineau, H. Borsarello, I. Wollman, F.-C. Tao and T. Ghasarossian
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- 17:00** **Comparison of perceived sound qualities of five clarinets of different makes**  
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- 17:15** **Modeling roughness perception for complex stimuli using a model of cochlear hydrodynamics**  
V. Vencovsky
- 17:30** **Pitched Musical Instrument Sound Inter-conversion Through Extraction of Timbre Features**  
A. Kalyan, V. Sundarrajan and S. David

**Thursday 10 July 2014 - Cool instruments, Impact excitation and Player gesture****Poster room 1**

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N. Plath

- 11:00 **A Bowed Bamboo Tube Zither from Southeast Asia**  
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V. Fréour, B. Uva, A. Aliverti and I. Cossette
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T. Ziemer

### Thursday 10 July 2014 - Singing voice and Perception

#### **Poster room 2**

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- 16:00 **Enhanced music performing environment for persons with cochlear implants (CI)**  
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**Friday 11 July 2014 - Keynote lecture****Conference room****Chair Persons: T. H elie, B. Gazengel**

- 8:45**    **The Changing Picture of Nonlinearity in Musical Instruments: Modeling and Simulation**  
S. Bilbao

**Friday 11 July 2014 - Numerical simulation of musical sound****Conference room****Chair Persons: T. H elie, B. Gazengel**

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- 9:45**    **Numerical Simulation of Tanpura String Vibrations**  
M. Van Walstijn and V. Chatziioannou
- 10:00**   **Numerical Simulation of Whistles Using Lattice Boltzmann Methods**  
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**Friday 11 July 2014 - Experimental methods****Conference room****Chair Persons: T. Moore, C. Waltham**

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M. Kob
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