

## News

### Hi everyone!

Here is the September issue, we are coming back from holidays with several news concerning events.

A list of upcoming events is provided together with the upcoming event at Internoise, Innsbruck.

We also report on the conference and summer school in music and computation

organized in Stockholm.

A post on a strange resonator in the La Villete Park in Paris.

Finally, two YAN publication are posted about two Doctoral thesis on Speach and Music Acoustics. **Job offers are listed at page 7.**

**Best regards,  
The YAN TEAM**

### Contents

News	1
Internoise events	1
Upcoming events & deadlines	2-3
SMAC Report	4
Le Cylindre Sonore	5
YAN Publication	6-7
Job offers	7

## Internoise Innsbruck

Internoise conference in Innsbruck is approaching. It is very important to have such an international event here in Europe. Even if the global economic situation is not so good and many of us are changing our work or field of acoustics, the conference will have a very high rate of participation, especially in terms of papers presented (about 700). More than 50 members of the YAN will be an author/co-author of at least one of these papers.

In addition, YAN representatives of Austria, Belgium, Germany, Hungary, Spain, and Venezuela will be there so I hope you can get in touch with them.

These are timing of their presentations so that you can find them easily:

Austria: Monday 11:20-11:40, Hall New Orleans, Kaiser, Fabio

Belgium: Monday 14:40-15:00, Hall Tirol, Bockstael, Annelies

Germany: Wednesday 09:20-09:40, Hall Igls, Töpken, Stephan

Hungary: Monday 08:20-08:40, Hall Grenoble, Huszty, Csaba

Spain: Monday 09:00-09:20, Hall Grenoble, Monteiro, Carolina R. A.

Venezuela: Monday 14:00-14:20, Hall New Orleans, Santiago, Gabriela

Another 5 representatives are co-authors of papers but we don't know if they will be at the conference.

We hope to see all of them at the young professionals workshop, taking place on Tuesday 14:00 – 17:00 at the Hotel Grauer Baer, in which YAN team members Elena (vice chair-newsletter) and Fosca (community manager) will be involved. It will be an interesting occasion to learn something about our careers and to get in touch directly.

*For those who are going to be attending the conference, and more generally to have fun together, we are going to have an informal evening meeting (in spite of the social dinner!). Time and place of the meeting will be announced by email and Facebook as soon as it is established.*



# Upcoming events & Deadlines 1/2

Upcoming events September 2013:

- 2-4 September 2013: (AES 52nd): 52nd Conference on Sound Field Control - Engineering and Perception. Guildford (UK).  
<http://www.aes.org/conferences/52/>
- 2-6 September 2013: (DAFx-13) 12th - International Conference on Application of Contemporary Non-destructive testing in Engineering. Maynooth(Ireland).  
<http://dafx13.nuim.ie/authors.html>
- 4-6 September 2013: (ICNDT 2013): 12th - International Conference on Application of Contemporary Non-destructive testing in Engineering. Portoroz (Slovenia).  
[http://lab.fs.uni-lj.si/latem/ndt/index.php?Naslov\\_linka=index](http://lab.fs.uni-lj.si/latem/ndt/index.php?Naslov_linka=index)
- 8-13 September 2013: (IBAC2013) International Bioacoustics Congress 2013. PIRENÓPOLIS(Brazil). <http://www.ibacbrazil.com/Home.html>
- 9-13 September 2013: (EUSIPCO2013) 21th European Signal Processing Conference. Marrakech (Morocco).  
<http://www.eusipco2013.org/>
- 15-18 September 2013: (INTERNOISE 2013) International Congress and Exposition on Noise Control Engineering. Innsbruck (Austria).  
<http://www.internoise2013.com/>
- 26-28 September 2013: (ETAI 2013) 11th International conference on Electronics, Telecommunications, Automation and Informatics. Ohrid, Macedonia.  
<http://etai.feit.ukim.edu.mk/>
- 30 September-2 October 2013: Echopolis - Days of Sound. Athens (Greece).  
<http://www.event2013.sd-med.org/en/>

Upcoming events October 2013:

- 2-4 October 2013: (Tecniacústica 13): 44nd Spanish Congress on Acoustics and the Iberian Encounter on Acoustics, EAA European Symposium on Environmental Acoustics and Noise Mapping. Place: Valladolid (Spain).  
<http://www.soundstudies.eu/2013conference/>
- 8-9 October 2013: (JAAN 13): acoustic and naval applications. Place: Nice (France).  
<https://intranet.sfa.asso.fr/archives/J74-JAAN2013/>
- 9-11 October 2013: (PURAC 2013): the 4th Pacific Rim Underwater Acoustics Conference. Place: Hangzhou, (China).  
<http://pruac.zju.edu.cn/index.htm>
- 23-25 October 2013: (SYMPOL 2013): 12th biennial Symposium on Ocean Electronics. Place: Kerala (India).  
<http://sympol.cusat.ac.in/index.php>

Submission deadlines September 2013:

7 September 2013: Acoustics 2013 New Delhi (Full paper)

15 September 2013: (AES 53rd) 53rd Conference on Semantic Audio (Abstract)



# Upcoming events & Deadlines 2/2

Workshops September 2013:

- 12-13 September 2013: (ISMA 38) Annual ISMA course: Modal Analysis, Theory and Practice. Leuven (Belgium).  
[http://www.isma-isaac.be/isma\\_course/about.html](http://www.isma-isaac.be/isma_course/about.html)
- 12-13 September 2013: (ISAAC 24) Annual ISAAC course: Advanced Techniques in Applied and Numerical Acoustics. Leuven (Belgium).  
<http://www.isma-isaac.be/>
- 23-27 September 2013: Workshop on Physic Acoustic and applications.  
<http://www.inrim.it/ScuolaAcusticaFisica/index.html>
- 24-25 September 2013: (CEAS and X-NOISE EV) Workshop on Atmospheric and ground effects on aircraft Noise. Sevilla (Spain).  
<http://www.anotecc.com/ceas-ws17.html>
- 24-26 September 2013: (COSAC 2013 MEETING) Symposium dedicated to Non- Destructive Testing in the field of Aeronautics. Toulouse(France).  
[http://sfa.asso.free.fr/ECHO\\_HEBDO/2013/doc/call\\_cosac.pdf](http://sfa.asso.free.fr/ECHO_HEBDO/2013/doc/call_cosac.pdf)
- 26 September 2013: Recent developments in communication and focusing by time reversal. Paris(France).  
<http://gdr-isis.fr/index.php?page=reunion&idreunion=213>

Workshops and Grants October 2013:

- 2-4 October 2013: Grants in Tecniacustica 2013. Quantity: 300€. Valladolid (Spain).  
<http://www.sea-acustica.es/index.php?id=643>
- 21-25 October 2013: AutumnSchool: City and acoustics. Nantes(France)  
<https://intranet.sfa.asso.fr/archives/J80-VISIBLE/>
- 31 October 2013: Awards "Amedeo Giacomini": Best Master Degree Thesis in Acoustics, Graduated under 30. Quantity: 1000€.  
<http://www.associazioneitalianadiacustica.it/index.php?p=default/premi/giacomini/language/en>
- 31 October 2013: Awards "Gino G. Sacerdote": Best PhD Thesis in Acoustics, Doctors under 35. Quantity: 1500€.  
<http://www.associazioneitalianadiacustica.it/index.php?p=/default/premi/sacerdote>



TIP:

Please notice that links in events & workshop should be cut and pasted in a browser to work!

# SMC-SMAC 2013.

## Music Acoustics and Music Computing Conference

Every ten years the SMAC conference is hosted in Stockholm with the purpose of meeting teachers, workers and students researching in the field of music acoustics. This year has been celebrated the 4th edition of the Stockholm Music Acoustic Conference (SMAC) together with the 10th edition of the Sound and Music Computing (SMC) annual conference, between the 30th July and the 3rd August 2013 in the KTH Royal Institute of Technology, Stockholm, Sweden.

The first day for both conferences was inaugurated with the RENCON workshop and piano competition, where several automatically rendered performances were showed, in order to make the audience decide which performance was more similar to a human player. Oral paper presentations, plenary sessions and poster presentations was the daytime program, whereas music performances took place the first three evenings in the Royal College of Music (KMH). The topics of the concerts were spatialisation, visuals and voice.

In the SMAC conference, presentations showed the research works done in music acoustics about woodwinds, singing, brass instruments, violins, percussions, and physical modeling. In SMC conference, the main topics were the perception, music information retrieval (MIR), human-machine interaction, and sonic interaction design.



*Reception in Stockholm City Hall*

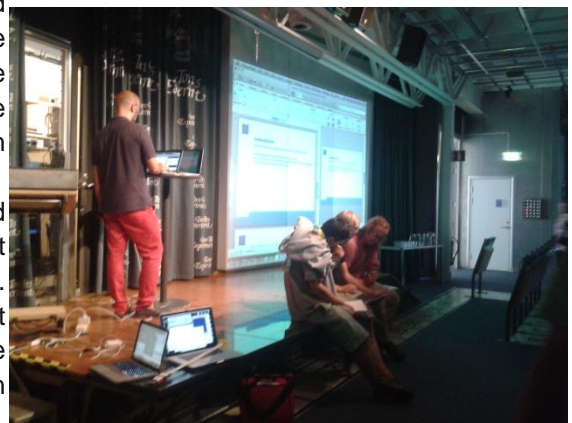
The poster sessions treat similar topics as the oral presentations.

Interesting outcomes from applied research were the Hardanger fiddle, new mouthpieces for saxophone players printed in 3D, comparisons between a new bassoon (bassoforte) and the modern German bassoon, differences between ebony and rosewood used in electric guitars fingerboards, a MIDI bagpipe, air sticks for electronic percussionists, the creation of plucking buttons for touch screens...

## SMC Summer School in Sound and Music

It took place in the same university of KTH Royal Institute of Technology (Stockholm, Sweden) from the 2nd to the 6th of August 2013. Seventeen young researches met in the school to learn more about the emotions recognition in music, their processing, analysis and the evaluation methods in sonic interaction. During four days the students had to attend the courses in the morning, and create a project in group of four in the afternoons based on the sound and emotions. At the end of the summer school the projects were presented orally with some exhibition at the music and emotion "Tom Tits Experiments" exhibition in Sodertalje, Stockholm.

Projects like "singing bubbles" or "Fab Hatt" were created there, which consist of the sonification of the movement through expressive change in music using a gyroscope sensor. The classification of monophonic music as with or without vocals was another project, together with the last one consisting of the use of sound for conveying emotions in movies 's restaurant scenes.

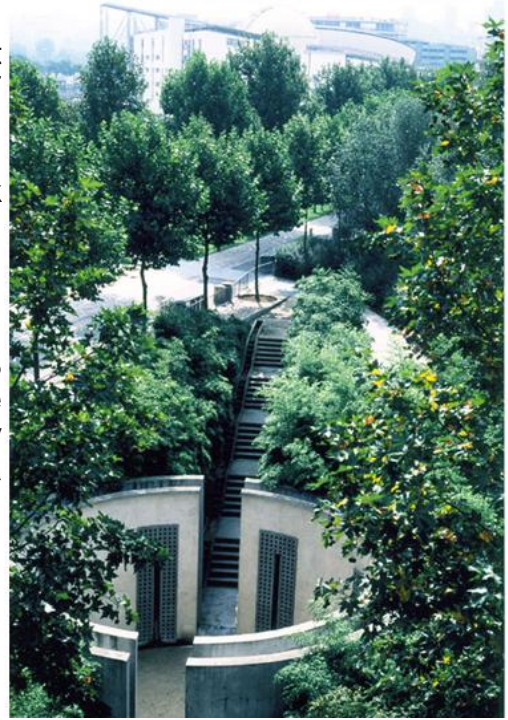


*Presentation of the summer school projects in the "Tom Tits Experiments" exhibition*

## Le Cylindre Sonore.

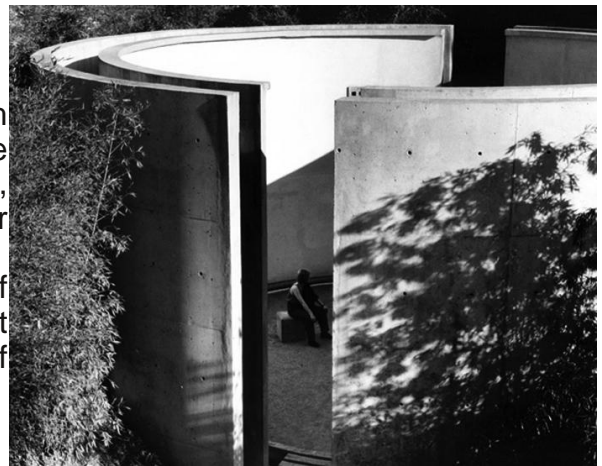
Le Parc de la Villette is one of the biggest and most important parks in Paris. In this park there is a 1987 construction that uses sound as an essential element. Le Cylindre Sonore was conceived as a transitional space between the north and south parts of the park and is accessed by a long stair case.

This public art element is formed by a double cylinder, 10 meters in diameter and 5 meters high. The external wall serves as a retaining wall and inside there are 8 reinforced concrete panels. Behind each one of these there can be found three loud-speakers vertically situated at different heights. The chamber acts like a resonator.



Leitner explains that the sounds can be heard from outside and invites the passerby to enter. The sounds produced encourage the visitors to stop, listen, linger and reflect before continuing their journey through the park.

"Sound is no longer exclusively the instrument of musical expression, designed with precision, it becomes a building material in the creation of space." - Bernhard



You can see a video in this [link](#)  
*What's your feeling about this soundscape?*

Photos: <http://www.bernhardleitner.com/en>

More posts on acoustics in: <http://www.esehache.com>

# YAN publications

**Title: "Speech anchor and dynamic models of prosody : application to acted and spontaneous emotion recognition"**

**Author:** Fabien Ringeval

**Affiliation:** ISIR - Institut des Systèmes Intelligents et Robotique, France

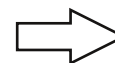
**Published in:** Doctoral Thesis [\[link to full paper\]](#)

**Abstract:**

Recognition of emotional state of a speaker is an important step in making the human-machine communication more natural and friendly. We study in this thesis the problem of emotion-oriented automatic speech processing (ASP) on both acted and natural data. The study of spontaneous emotions is conducted along with the ones having communication disorders which limit the development of the interaction's capabilities of a child. Techniques derived from emotion-oriented ASP must be based on robust parameters to describe the emotional correlates, and also face the constraints that are related to the change of speaker and semantic context. In this view, our work is based on the use of automated techniques to perform emotion recognition: we use many complementary anchors of speech (e.g., pseudophonemes) to extract different types of parameters from the signal (e.g., acoustic and prosodic), and also combine techniques to estimate their contributions in the recognition task. An effort has been done to focus on the development of new unconventional models of speech rhythm, since this component is not modeled clearly in the state-of-the-art emotion recognition systems. The experiments conducted in this thesis aim to demonstrate the relevance of using several anchor points of speech and their associated rhythmic patterns to identify the features that are correlated with emotions.

The study of prototypical emotions has permitted to define a continuum which represents the emotional categories along with the emotional wheel of Plutchik. The analysis of communication disorders are carried out in close collaboration with clinicians and researchers teams in emotion-oriented ASP. This work aims to use automated methods (i.e., identification of speech anchor points and extraction of prosodic features) to characterize the features that are associated to a given language impairment (LI), e.g., autism, dysphasia and pervasive developmental disorders non-otherwise specified (PDD-NOS). A control group of typically developing children is also used to compare the prosodic abilities of the LI subjects.

The results we obtained in this study are very promising because they contributed significantly to discriminate all of the LI subjects from the typically developing children, and also discriminate the different groups of LI in two distinct type of events: (i) imitation of intonation contours (constrained task) and (ii) production of spontaneous emotional speech (unconstrained task). In addition, the results provided by an automatic analysis of these data also allowed retrieving the diagnostic criteria defined by clinicians on the different groups of LI children. Current techniques in ASP can thus overcome the difficulties created by the study of spontaneous speech data produced by children voices. This opens the way for the difficult but so interesting task of how to make friendly and less "cold" communication systems that are currently available to us.



**Title: "Musician / instrument interaction: the case of the concert harp"**

**Author:** Delphine CHADEFaux

**Affiliation:** IJLRA-Institut Jean Le Rond d'Alembert, France

**Published in:** Doctoral Thesis [\[link to full paper\]](#)

**Abstract:**

The physics of musical instruments has been studied to a point where many instruments can now be modeled to produce realistic sound synthesis. However, the knowledge of the mechanics of any system is not sufficient to predict its behavior after a human interaction. Thus, the investigation of the musician-instrument interaction is an active field of research, which aims at including the musician impact on the sound production. Eventually, it will be valuable to provide more realistic sound synthesis. Over the years, trained instrumentalists develop the ability to produce notes in a specific and reproducible way. They learn how to control their gestures to perform each note with the desired acoustical features. This thesis studies the control parameters used by the harpist in relation to the produced sound. First, the player/harp interaction has been investigated by characterizing the musical gestures in relation to the musical interpretation. Then, we focused on the gesture directly involved in the sound production, i.e. the plucking action. This analysis had underlined the characteristics of string plucking, both highly reproducible and player-specific. Finally, a previous model of the finger / string interaction has been enhanced by using these results. It has been validated by a repeatable and configurable robotic finger.

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## Job offers

- Associate/Assistant professor - DTU:

<http://www.elektro.dtu.dk/Om-os/Ledige-stillinger/bd49d321-bff7-43d5-959d-bfc09d4c64e6.aspx>

- Noise and Vibration consultant - Lloyd's Register Consulting:

<http://www.lr-ods.com/vacancies/247513-consultant-energy-noise-and-vibration.aspx>

- Postdoc position "Acoustic metamaterials in the audible frequency regime" – LAUM

[http://sfa.asso.free.fr/ECHO\\_HEBDO/2013/doc/acousticmetamaterialsaudible.pdf](http://sfa.asso.free.fr/ECHO_HEBDO/2013/doc/acousticmetamaterialsaudible.pdf)

- PhD position "Serious Auralization" – LAUM

[http://www.limsi.fr/Formation/prop\\_these/PhD\\_position\\_SeriousAuralization\\_LIMS12013.pdf](http://www.limsi.fr/Formation/prop_these/PhD_position_SeriousAuralization_LIMS12013.pdf)

- Acoustic consultant – Apex Acoustics

<http://apexacoustics.co.uk/vacancies.html>

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## EAA YAN

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web: <https://www.euracoustics.org/activities/young-acousticians-network>

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