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THE AUDIO ENGINEERING SOCIETY



BULLETIN

JANUARY 2013

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JOINT PRESENTATION/TOUR WITH SMPTE

**Koerner Hall**

**Jeff Bamford, Engineering Harmonics; John O'Keefe, Aercoustics**

<b>date</b>	<b>Tuesday, 8 January 2013</b>
<b>time</b>	<b>7:00 PM</b>
<b>where</b>	<b>Koerner Hall</b> 273 Bloor Street West, Toronto, ON
	Pre-meeting Dutch treat dinner at <b>Gabby's Bar &amp; Grill 192 Bloor Street West</b>
	This month's meeting will be NOT available live on-line.
	<b>PRE-REGISTRATION REQUIRED</b> Attendance is limited to 110 for both AES and SMPTE. Follow this link: <a href="http://smptetoronto-jan2013.eventbrite.com/">http://smptetoronto-jan2013.eventbrite.com/</a>

PRESENTATION

Built over three years at a cost of some \$110 million, the 1,135-seat Koerner Hall is the jewel of the new TELUS Centre for Performance and Learning at the Royal Conservatory of Music. Since its opening on September 25, 2009, Koerner Hall's beautiful design, flexible performance characteristics and superb acoustics have been praised by critics and performers alike. The hall achieved the highest possible acoustic rating—N1—rendering it ideal for the finest acoustical performances of classical music, jazz, and world music. The incorporation of variable acoustics makes it equally well suited to amplified music, lectures, and film presentations.

The hall features an innovative and almost invisible 'voice-stick' designed by Engineering Harmonics to maximize intelligibility, rather than sound reinforcement. Aercoustics was responsible for optimizing the acoustics.

John O'Keefe, Aercoustics will speak on behalf of the acoustics team and Jeff Bamford, Engineering Harmonics will speak on behalf of EH. Both EH and Aercoustics worked with Sound Space Design from London for this project.

AES TORONTO APPRECIATES THE CONTINUING SUPPORT OF



PLEASE POST - MEMBERS AND GUESTS WELCOME

## BIOGRAPHIES

### Jeff Bamford

#### Consultant and Project Manager, Engineering Harmonics

Jeff Bamford is a consultant and project manager at Engineering Harmonics. Drawing on 14 years of professional experience, he also heads our IT group serving our four offices.

Holding a master's degree in physics, Jeff brings a strong analytical and scientific mind to his work. Coupled with a solid foundation in sound and acoustics, this has made him our lead resource in the field of acoustics and loudspeaker systems.

Jeff has taken a lead role on over 25 courthouse projects, making him an exceptionally seasoned designer and project manager for judicial facilities. His rigorous style, combined with a natural talent to document and write, makes him an invaluable resource in our production of studies, reports and standards. He also provides leadership in the development of project specifications.



#### Portfolio

Jeff's portfolio includes the House of Commons Committee Room mock up project (Ottawa), where he directed an exhaustive process of testing, evaluation and documentation of a wide variety of sound, AV and broadcast technologies. Jeff also managed the performance sound, video and communications systems for the award winning Sosnoff Theater at [Bard College, Richard B. Fisher Center for the Performing Arts](#) (Annandale-on-Hudson, NY), and the extensive loudspeaker system modeling for the sound systems renovation at the [Rogers Centre](#) in Toronto. He has made acoustic recommendations for speech intelligibility in numerous classrooms at York University (Toronto) as well as sports facilities of various types.

#### Education & Career Beginnings

In 1992 Jeff graduated with honors with a B.Sc. in physics from the University of New Brunswick. His ongoing quest for a deeper technical understanding of sound led him to the renowned Audio Research Group at the University of Waterloo, where he received his M.Sc. in 1995 for his research into three dimensional recording techniques (ambisonics). Jeff's interest in audio, technology and music was kindled at an early age. He then found his niche in radio clubs in university, where he was called on both for his able technical support and in his capacity as an accomplished DJ.

Jeff has completed a number of technical courses offered by system manufacturers, including IED Airport Systems (2002), BSS Soundweb Training (1999), and SIM System II Operator (1999).

#### Memberships

Jeff is a member of the Canadian Acoustical Association ([CAA](#)) and the Audio Engineering Society ([AES](#)). He has held executive positions as chairman, recording secretary and treasurer of the AES Toronto Section. During his tenure as chairman, the section held a daylong conference entitled *The Roots of our Toronto Sound* that explored the history of the city's legendary music and recording scene.

## Publications

Jeff is the author of “Audio for Committee Rooms” (*Journal of the Canadian Acoustical Association*, Sept. 2004), “A Review of the SkyDome Acoustical Model” (*Journal of the Canadian Acoustical Association*, Sept. 1999), “Ambisonic Sound for Us” (preprint 3184 of the AES, 1995), and “Ambisonic Sound for the Masses” (*Canadian Acoustics*, Vol. 22, No. 3, 63-63, Sept. 1994). His technical presentations include “Ambisonics & Quantum Mechanics” (AES Toronto Section, April 2005), “Audio for Committee Rooms” (Conference of the Canadian Acoustical Association, Oct. 2004), “A Review of Committee Room Prototype Project” (AES Toronto Section, Feb. 2002), and “Ambisonic Sound for the Masses” (Conference of the Canadian Acoustical Association, Oct. 1994).

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## John O’Keefe Principal, Aercoustics

John O’Keefe became one of four principals in Aercoustics Engineering Limited in 1992. He has been responsible for optimizing the acoustics of some of Canada’s finest performing arts centres including the Vancouver Orpheum (refurbished home of the Vancouver Symphony Orchestra); The Esplanade Arts and Heritage Centre in Medicine Hat, Alberta; plus Toronto’s Four Seasons Centre for Performing Arts (new opera house), the Royal Conservatory of Music’s Koerner Hall as well as the Princess of Wales Theatre. Plus various projects in the United States, Dubai, the United Arab Emirates and the Caribbean.

He was awarded the 2007 Ed Schreyer Award for engineering innovation by Canadian Consulting Engineers for the firm’s work on the Esplanade Arts and Heritage Centre. Two key innovations were in small scale acoustic modeling and displacement ventilation.

He won a CCE Award of Merit in 1996 for the acoustic renovation of the Orpheum, and a Canadian Acoustical Association’s Directors’ Award in 2000 for an academic paper relating to the project.

John also teaches at the University of Toronto’s Faculty of Architecture and Landscape Design and is a bass choral singer, guitarist, past President of Toronto’s Ensemble Noir, a member of the Institute of Acoustics, England, and earned his B.A.Sc., Electrical Engineering, University of Toronto, 1981 and M.Sc. in Sound and Vibration Studies, from Southampton University in 1985.



## Additional Links

<http://www.theglobeandmail.com/arts/a-journey-of-sound/article4282272/>

<http://aercoustics.com/our-people/john-okeefe/>

[http://www.engineerharmonics.com/sites/default/files/BM1003%20The%20New%20Koerner%20Hall\\_0.pdf](http://www.engineerharmonics.com/sites/default/files/BM1003%20The%20New%20Koerner%20Hall_0.pdf)



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