



AES

SWISS SECTION NEWSLETTER

82nd Issue

INFORMATION ON JOINT MEETING WITH SGA-SSA

HEARING DAMAGE ISSUES

Thursday 23rd of May 2002, 15h00-18h30 at Phonak, Laubisrütistasse, Stäfa

SPEAKERS: Dr. Alfred Stirnemann, Phonak, *Guided tour, 15h00-16h00*
Beat W. Hohmann, Suva Luzern, *Music-induced hearing loss – what we think we know today, 16h30*
Volker Kühnel, Phonak, *Psychology and audiology in normal and hearing-impaired persons, 17h30*

ORGANIZERS: Beat W. Hohmann (SGA-SSA)
Walter Köller (AES)

LANGUAGE: German



Swiss Acoustical Society
Société Suisse d'Acoustique
Schweizerische Gesellschaft für Akustik
Società Svizzera di Acustica
Internet: www.sga-ssa.ch

The programme of the joint meeting with the Swiss Acoustical Society is as above. The Guided tour through Phonak will be for registered participants only (2 - 3 groups) and will include a demonstration "Acoustic transfer function of a hearing" instrument by **Dr. Alfred Stirnemann**. There will then be a coffee break and refreshments before the start of the main presentations from Beat Hohmann and Volker Kühnel at 16h30. An optional dinner will be held at 19h30 in a restaurant close to the Stäfa railway station.

The Swiss National Accident Insurance Organisation (Suva) is the supervisory body for the prevention of occupational accidents and diseases in Switzerland. Suva's Acoustics Section supports companies in noise control at work-places. **Beat Hohmann's** will first explain the criteria and limit values for noise exposure at workplaces. Not only employees in industry are exposed to potentially dangerous sound levels, but also professional musicians in orchestras. A recent study carried out by Suva showed that their long-term equivalent sound exposure exceeds 85 dB(A) which means a considerable risk of noise-induced hearing loss. As a surprise, it was found that professional classical vocalists - just due to their own voice - are exposed to even much higher levels! The question whether and when the hearing system reacts differently to music than to noise will be discussed.

Partly in cooperation with the Swiss Federal Office for Public Health (BAG), Suva conducted several

studies regarding music exposure of young people and the risk of music-induced hearing loss. The results will be shown. One of the most interesting questions was "How do young people judge the sound levels at music events?". Not only live sound engineers should know about...

In **Volker Kühnel's** presentation, the normal sense of hearing and fundamental effects of sensorineural hearing impairment will be discussed. Physiological causes and consequences such as elevated threshold, loudness recruitment and reduced frequency selectivity on sound perception will be shown. An acoustic demonstration of how sensorineural hearing impairment may sound will be presented. Overall sensorineural hearing loss leads to a degradation of speech intelligibility, especially in the presence of background noise in hearing impaired subjects. Finally the implications of current knowledge about hearing and hearing impairment on the development of hearing instruments will be outlined.

Biographical Notes

Alfred Stirnemann, born in 1949, studied at the electrotechnical department of the ETH Zürich. He received his PhD in 1980 with a work on impedance measurements on human ears and the simulation of the transfer function of the middle ear. From 1981 to 2001 he worked at Sulzer Innotec where he headed the laboratory for machine dynamics and acoustics during his last 4 years. He joined Phonak in 2001 and is now managing the group "computer modelling and simulation".

INFORMATION ON JOINT MEETING WITH SGA-SSA (continued)

Beat Hohmann was born in 1953. He studied Electrical Engineering at the Institute of Technology (ETH) Zurich. From 1979 to 1982 he carried out a study on the risk of hearing damage caused by impulse noise (Ph. D. in 1984). He joined the Swiss National Accident Insurance Fund Suva in 1983 where he became head of the Acoustics section in 1987, a position that he still holds today.

Volker Kühnel obtained his diploma in physics in 1991 at the University Göttingen in Germany and

His Doctorate in Göttingen in 1995 in the field of physics of liquids / ultrasonics. He held a Post-Doc position from 1995 to 1997 at the University Oldenburg in the medical physics group under Prof. B. Kollmeier. He worked on the development of new audiological measurement procedures. Since 1998 he has been with Phonak. Currently he is managing the group Audiological Engineering as part of the R&D and is responsible for audiological research projects, specification and verification of fitting methods as well as new fitting concepts and research oriented field trials.

“A DECADE OF AUDIO EDUCATION IN SWITZERLAND”

REPORT ON 4th SWISS FEDERAL EXAMS FOR SOUND TECHNICIANS

Celebrating a decade of involvement in audio education, the AES Swiss section recently had the pleasure of welcoming the successful graduates of the 2001 sound technician exams, along with teachers, committee members and other guests, to a diploma-ceremony held at the magnificent Jean Nouvel-designed "Kultur- und Kongresszentrum KKL" in Lucerne.

It was in 1992 that the working group "audio education" of the AES Swiss Section started work on establishing a government approved education for sound technicians - a profession which did not formally exist previously in Switzerland. Two years later the first students started their 18-month course in licensed schools in Lausanne and Zurich. In 1995 the AES examining committee organised the first set of exams. After gaining official recognition from the Swiss Federal government, the first diplomas were handed out to the successful candidates in 1996.

The exams have been made possible due to countless hours of voluntary work from members of the AES Swiss Section and other people from the audio business. Many companies and organisations have helped with providing rooms, infrastructure or equipment. Among them: STUDER Professional Audio, EMTEC Magnetics, WEISS Engineering, MERGING Technologies, Gotham AG, J&C Intersonic AG, Radio Suisse Romande and Stadttheater Bern.

At this years diploma ceremony held in Lucerne on the 8th of April, Markus Erne, AES vice president Central Europe, and Martin Lachmann, chairman of

the examining committee, handed over 19 diplomas to the graduates of the 2001 exams - the 4th exam session organised by the AES Swiss Section.



Graduates from the 2001 exam session

These young professionals, together with the graduates from the past three exam sessions, now represent a community of nearly 100 well trained sound engineers who form a kind of a "backbone" of talent for all segments of the Swiss audio business.

After 10 years, the AES education for sound technicians is widely recognised around the Swiss audio business and a growing number of employers (among them Swiss National Radio and TV) specifically require the education when recruiting new personnel. The next exams - the 5th session - will be held in 2003.

Members of the AES Swiss Section examining committee 2001/2002: Gabriel Basso, Dr. Markus Erne, Stefan Giannini, Martin Lachmann (president), Andreas Litmanowitsch, Terry Nelson, Patrick Roe (vice president), Marcel Zulauf

Reporter; Martin Lachmann, 25. April 2002