Thursday, April 16, 2009 6:30 - 8 PM

Location: College Hill Library, Room L-107 3705 West 112th Ave Westminster, CO 80031

Come Join us: Free and Open to All
Pizza and Drinks provided

College Hill Library is located at the Front Range Community College, Westminster campus, at 3705 W. 112th Ave. between Sheridan and Federal Blvds.

Signal Processing in Hearing Aids

Dr. James Kates, GN ReSound

James M. Kates was born in Brookline, Mass, in 1948. He received the degrees of B.S.E.E. and M.S.E.E. from the Massachusetts Institute of Technology (MIT) in 1971, and the professional degree of Electrical Engineer from MIT in 1972. He currently is a Senior Research Engineer in the Algorithm Development Group of GN ReSound. . He is also an Adjunct Professor in the Department of Speech, Language & Hearing Sciences at the University of Colorado at Boulder, where he conducts research in auditory perception, hearing loss, and signal processing for hearing aids.

Hearing-impaired listeners have difficulty hearing low-intensity sounds, and also perform poorly in background noise, multi-talker interference, and reverberation. The goal of a hearing aid is to restore, as effectively as possible, the hearing in the impaired ear to match that of the normal ear. A modern hearing aid includes many types of signal processing to amplify the signal and reduce the effects of background noise. The signal-processing algorithms implemented in hearing aids will be described, along with the processing limitations imposed by the small size and low power consumption of these devices and the complexities of dealing with the acoustic environment of the head and ear.

Joint Presentation of the Signal Processing Society and Engineering in Medicine and Biology

For more information, visit our website at http://ewh.ieee.org/r5/denver/sps/