

Why is There no Key of H?

Dienstag, 18. Mai 2010
17:00 Uhr
Semper-Aula (HG G 60)
ETH Zürich, Zentrum, 8092 Zürich

Steve Winterstein
Dr.
Consulting Engineer



Have you ever wondered about the structure of music – is it merely an accident of history that our music sounds the way it does? We currently send snippets of Bach across galaxies, seeking to tantalize highly developed aliens. Is there any reason they should appreciate our definition of an aesthetically pleasing series of tones? This talk considers our practices of tonal music from the point of view of mathematical physics, and offers mathematical explanations for our experiences of musical pleasure or displeasure. We will ask, and try to answer, the following questions: Is there a logic to musical notation, and a reason why the named notes A through G repeat (rather than continue through the alphabet)? What is the consequence of well-tempered tuning? What would have happened if Beethoven had been happy when he wrote his Symphony No. 5? These questions and others will be addressed through a variety of piano pieces and excerpts, ranging from Chopin to Rachmaninoff, Debussy to Gershwin.