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**Live computer-based demonstrations in musical acoustics**  
**education**

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Live demonstrations play a vital pedagogical role in any science education programme. For a subject as interdisciplinary as musical acoustics, embracing as it does mathematics, physics, engineering, psychology, cognitive science, neurophysiology, musicology and music technology, demonstrations of psychoacoustical phenomena and performances on musical instruments provide invaluable methods for involving and intriguing a general audience. The recent dramatic increase in the memory and speed of laptop computers has opened new possibilities for live computer-based demonstrations. This talk explores some of these possibilities, including demonstrations of the analysis and display of musical instrument sounds using real-time spectrographic programs and the explanation of important musical instrument characteristics using physical modelling synthesis.