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Ingegneria Modena
Dipartimento di Ingegneria
"Enzo Ferrari"

Dip. di Ingegneria "Enzo Ferrari" - Via Pietro Vivarelli, 10 Modena
Friday May 22nd 2015, 9-11am
Room: FA-1D

Discovering the Music Information Retrieval Field

Alessio Bazzica, Delft University of Technology (The Netherlands)

Audio Fingerprinting: how does the music-identifying app Shazam work its magic?

Many of us have experienced the need for identifying a song. This usually happens at an unpredictable time: while listening to the radio in the car, at a party, shopping in a mall. We can neither push pause nor ask everybody to shut up. To make the things worse, there are dozens of millions songs out there which could be the one you want to recognize. This is why the popular app Shazam looks like a magic box. In a bunch of seconds, it can match your noisy excerpt to a database of 11 million songs with an extraordinary accuracy. In this lecture, an introduction to the underlying indexing and retrieval algorithms will be given interactively showing how they work.

Enriched and Interactive Concert Experiences

A live symphonic classical concert is an adventure: under the guidance of a conductor, more than a hundred players take you along on an extended musical journey. To someone not used to go to classical concerts, this may be quite daunting though: *what happens over the long course of a classical piece, and what should you listen for when all these musicians are playing at once?* In this brief session, the EU project PHENICX (http://phenicx.upf.edu/) will be presented showing how different technologies can make the concert experience interactive, enriched and personalized.

Alessio Bazzica received the M.S. degree in Computer Engineering from the University of Florence (Italy) in 2012 and is now a 3rd year PhD candidate at the Multimedia Computing (MMC) Group in Delft (The Netherlands).His research focuses on cross-modal and multimodal analysis in the Music Information Retrieval field. Effectively solving problems like performance-to-score synchronization and sound source separation poses many challenges, especially when several musicians perform at the same time (e.g., large symphonic ensembles in classical music). To address the limitations of audio-only based methods, he investigates how to possibly exploit the visual channel of an audiovisual recording of a music performance. His works span scene understanding, human-object interaction analysis and video face clustering. The research is funded by the European Union Seventh Framework Programme FP7 / 2007–2013 through the PHENICX project.

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