

15

DAUIN LUNCH SEMINAR

mercoledì

19/02/20

POLITECNICO DI TORINO



ore **12.30/13.30**

**Sala Conferenza
"Luigi Ciminiera"**
Corso Castelfidardo 34/D
Torino

www.dauin.polito.it

Sandro Cumani

DAUIN-Politecnico di Torino



MACHINE LEARNING FOR SPEAKER RECOGNITION



**POLITECNICO
DI TORINO**

Dipartimento
di Automatica e Informatica

ABSTRACT

The growth of possible applications, the increase in computational power, and the widespread adoption of portable devices has produced, in the last years, an increasing interest from the academic community, industries and governments in automatic systems able to process speech segments. As a result, speech technology is becoming more and more pervasive, as it allows for natural user-machine interactions. In the field of Cybersecurity, voice can be effectively employed as alternative to fingerprint or face recognition. Furthermore, speaker identification plays a relevant role in forensics and surveillance. Due to the importance of these topics, the Speech Recognition Group (SRG) of Politecnico di Torino has been actively involved for several years in the development of novel speaker identification and verification approaches based on Machine Learning and Artificial Intelligence techniques.

This talk presents an overview of the main machine learning approaches to speaker recognition, focusing on the contributions of the SRG group to the state-of-the-art. In particular, the talk will address the following topics: speech segment representation, computational complexity of voiceprint extraction, voiceprint classification, score calibration.

BIOGRAFIA

Sandro Cumani received the M.S. degree in Computer Engineering and the Ph.D. degree in Computer and System Engineering from Politecnico di Torino in 2008 and 2012, respectively. From 2012 to 2013 he has been a Researcher at the Brno University of Technology. In 2013 he joined again Politecnico di Torino, and he's now Assistant Professor in the Control and Computer Engineering Department. His research interests include machine learning, speech processing and biometrics, with a particular focus on speaker and language recognition. Since 2013, he has been working on several company-funded projects in the field of speech biometrics. He has (co-)authored more than 50 publications in peer-reviewed, journals and conference proceeding and 2 international patents. He currently acts as an associate editor for IEEE Signal Processing Letters.



Ingresso libero fino a esaurimento posti.

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Sarà disponibile un leggero rinfresco per coloro che si saranno registrati entro il 19 febbraio su:

<https://www.eventbrite.com/e/machine-learning-for-speaker-recognition-tickets-94592014261>

Il ciclo di incontri dei "Dauin Lunch Seminar" avrà luogo ogni terzo mercoledì del mese dalle ore 12.30 (in punto) fino alle ore 13.30.