

## **Dr. Fabrizio Gagliardi**

Barcelona SuperComputing Centre & EU-ACM Europe Chair



### **Considerations on Machine-Learned Automated Decision Making**

Aula Magna, Department of Information Engineering, University of Pisa, 12<sup>nd</sup> February 2018, 12am  
Via G. Caruso 16, Pisa, Italy

### **CV**

Fabrizio Gagliardi is the Chair of the ACM Europe Policy Committee (EUACM). He works as Distinguished Research Director at the Polytechnic University of Barcelona and serves as Senior Strategy Advisor at the Barcelona Supercomputing Center (BSC).

Dr. Gagliardi has been consulting on computing and computing policy matters with the Commission of the European Union, several government and international bodies.

Prior to this and until 2013 he was Europe, Middle East and Africa Director for External Research at Microsoft Research. He joined Microsoft in 2005 after a long career at CERN, the world's leading laboratory for particle physics in Geneva. There he held several technical and senior managerial positions since 1975.

Dr. Gagliardi obtained a doctor degree in Computer Science from the University of Pisa in Italy in 1974.

## **Abstract**

The lecture will discuss the challenges posed by the increasing presence of Machine Learning and Automated Decision Making (ADM) systems in almost every aspect of modern human life.

I will review the most recent developments in ADM systems, stressing their benefits and risks.

A brief overview of the recent technical developments in ADM sets the scene for exploring new methodologies, standards and review mechanisms to assess ADM's systems accuracy and fairness. ADM systems should satisfy the principles of accountability, traceability and responsibility. In order to do so, Ethics committees, strong legal systems and a critical and informed public opinion are indispensable. Therefore, the role of Education is central.

I will conclude discussing the huge potential of ADM systems well beyond the scientific and technical fields and the important responsibility of the commercial companies exploiting the large profit from their research and development investments in this field. The importance of basic scientific research and public educational efforts will be addressed. This will be essential to drive the development of ADM systems within a clear ethical framework. The role of public institutions and citizens is of the greatest importance in this regard and will also be covered.