



"Inauguration of Ph.D. School" 2020, Department of Chemistry and Industrial Chemistry



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Mario Caironi obtained his Ph.D. in Information Technology with honours at Politecnico di Milano (Milan, Italy). In 2007 he joined the group of Prof. Sirringhaus at the Cavendish Lab. (Cambridge, UK) as a

post-doc, working for 3 years on high resolution printing of downscaled organic transistors and circuits, and on charge transport in high mobility polymers. In 2010 he was appointed as Team Leader at the Center for Nano Science and Technology@PoliMi (CNST) of the Istituto Italiano di Tecnologia (IIT, Milan, Italy). In 2014 he entered the tenure track at the same institution, obtaining tenure in 2019. He is currently interested in solution based high resolution printing techniques for micro-electronic, opto-electronic and thermoelectrics devices, in the device physics of organic semiconductors based field-effect transistors, in biomedical and/or implantable sensors and electronics for the healthcare. He has more than 120 publications (h-index of 37, Scholar, December 2019). He is a 2014 ERC Starting grantee and a 2019 ERC Consolidator grantee.

Mercoledì 19 febbraio 2020

**Aula Magna
ore 15.00**

Beware of the Seven Research Sins

Abstract.

Science is a dynamic, self-correcting process developing through research. Data are collected and models are developed to understand and explain phenomena. Such process requires a thorough method, on the basic understanding that scientists and researchers comply with a solid methodology and can be trusted. Trust is also what society requires in scientists, on whom public money are invested. This is a strong responsibility.

In their work, scientists are facing doubts continuously. Doubt is distinctive of the scientific process. They are therefore continuously facing questions on how to correctly pursue and communicate their work. In doing so, they have to avoid obvious pits and not fall in any of the "seven sins in academic behavior", as defined in 2013 by Prof. Gunsteren at ETH Zurich [1]. Taking the latter work as a reference, I will show how in common scientific practice such sins may arise.

The main goal of this talk is to openly discuss about scientific standards and scientific conduct. While most of these aspects are given for granted, many notable examples are telling us that the scientific world is obviously not exempt from failure in trust. Increasing pressure on obtaining results and competition may be dangerous if best practices are not discussed and applied in research groups. An open discussion of such critical aspects, especially with students and young researchers, is an effective and concrete starting point to avoid waste of resources in correcting unreliable or wrong results.

Riferimenti bibliografici:

1. Angew. Chem. Int. Ed. 2013, 52, 118-122

To find out how to reach the Department, go to <http://www.chimica.unige.it>. For further information on this specific seminar or in order to ask for an appointment with the speaker after or before the seminar, contact Prof. D. Comoretto ☎ +39 010 3538736 e-mail: davide.comoretto@unige.it