



# COLLOQUIUM DFA

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AULA ROSTAGNI  
YOUTUBE STREAMING

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### *Decarbonizing Transportation*

**Abstract:** A radical energy transition to be accomplished in less than 30 years is a gigantic technical, economic and social challenge, which is further complicated by widespread resistance to change. Why is the decarbonization of transport a key part of the transition? What are the alternatives to the internal combustion engine (ICE)? Why is the battery electric vehicle (BEV) the most rational option for light-duty transportation? What about the availability of mineral resources to produce batteries? In a life cycle perspective, what is the best option between ICE and BEV? Is hydrogen propulsion a competitive option? What about biofuels? How could we decarbonize trucks, ships or airplanes? The seminar will try to answer these and other frequently asked questions, trying to go beyond the shallow approach often undertaken in the public debate on a topic which is of crucial importance for the future of the European manufacturing industry.



**Nicola Armaroli** is a chemist, research director at CNR, fellow of the Accademia Nazionale delle Scienze and editor of Sapere, Italian science magazine established in 1935. He works in the field of solar energy conversion and studies energy systems in their complexity. He has published over 250 scientific papers and 12 books. He is an energy consultant for various international institutions, and has given invited lectures at universities, research centers and companies around the world. He was a consultant to the Italian government from 2021 to 2022 on sustainable mobility and has won several awards and honors. He is committed to persuade people that science and technology are necessary but not sufficient, alone, to solve the world's problems.