



ISTITUTO MOTORI

Consiglio Nazionale delle Ricerche

Avviso di seminario
Venerdì 10 giugno ore 12.00

Diesel engines ways of improvement

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Abstract

The efficiency of Diesel engines still needs to be significantly improved to reach the forthcoming CO₂ targets while fulfilling the legislative requirements in terms of tailpipe pollutant emissions.

Within this context, IFPEN develops several research and innovation actions, in order to improve the thermodynamic efficiency of post Euro 6 Diesel engines. An overview of these investigations will be presented, with a focus on the following research lines:

- Assessment of the state-of-the-art of Diesel efficiency
 - o Analysis based on energy balances and split-of-losses analyses engine
- Low heat rejection combustion system
 - o Lifted Flame Diffusive Combustion (LFDC) approach: very large open bowl, low swirl and low nozzle permeability with very small and numerous orifices
- Thermal insulation
 - o Adiabatic by part engine, potential for Passenger Cars Diesel engines

