

Department of Mechanical and Process Engineering

# Distinguished Lecture

8 November 2018, 5.15 p.m.

ETH Main Building, Semper Aula (HG G 60)

## Combustion Science, Energy and Aerospace Propulsion

Professor Sébastien Candel

President of the French Academy of Sciences

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This lecture will introduce the many applications of combustion and focus, in particular, on those related to propulsion and energy. Fundamental issues in combustion will be discussed, illustrated by examples of current research and their applications. In the lecture we will show that major advances have been made in the field of combustion by combining theory and modeling with new experimental methods that use laser diagnostics and simulations, exploiting the possibilities of parallel computing. Examples of work dealing with annular combustor dynamics typical of aeronautical configurations, and cryogenic combustion for spacecraft launchers will give an extensive overview over recent progress.

Lecture intended for a general audience.

An aperitif will be offered after the lecture.