



SAPIENZA
UNIVERSITÀ DI ROMA

DIMA DEPARTMENT OF MECHANICAL AND AEROSPACE ENGINEERING

Newsletter - May 2018



HIGHLIGHTS

Ingegneria R&D 2018 – 3° Edition

The third edition of «*Ingegneria R&D: la ricerca vista da vicino*» presents the research activities of the Sapienza Engineering departments. In the Cloister of the Faculty, the most innovative research lines will be presented, developed by professors and researchers of the Faculty of Engineering through demonstration activities and the exhibition of prototypes. In the Cloister Hall, there will be a seminar with important speeches on aspects related to technological transfer opportunities and the activation of collaboration with stakeholders and industrial sectors. This relevant event will be attended by various actors in the research and development process, from the providers (students, PhD students, research fellows, researchers) to the stakeholders.





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NEWS FROM DIMA

Guest Lecture of Gen. SA Giovanni Fantuzzi

As part of the Master's Degree courses in Aeronautical Engineering and Space and Astronautics Engineering, for the courses of Space Construction and Air Traffic Control, it was held on May 3rd at 8.00 am, a Guest Lecture of the **Logistic Commander of the Italian Air Force Gen. SA Giovanni Fantuzzi**. The lesson addressed the topic of logistics in aerospace systems and their operations. The tasks and the programs of the Experimental Flight Center of the Italian Air Force at Pratica di Mare were also illustrated. Some teachers and young researchers interested in this topic also took part in the lesson.





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NEWS FROM DIMA

WorkShop modeFrontier

EnginSoft in collaboration with prof. Mauro Valorani presents modeFRONTIER. The event will be held on Monday 14 May at the Cloister Hall of Faculty from 12.00 to 14.00. During the presentation it will be shown how to set up a proper multidisciplinary and multi-objective optimization workflow to improve the efficiency of engineering design processes, and some cases will be presented in different industrial sectors. Participation is free and will be offered, free of charge, a training day and a trial license of modeFRONTIER for one month. For further information follow this link: http://www.ing.uniroma1.it/sites/default/files/allegati_notizie/Flyer.pdf



Tecnologia modeFRONTIER e competenze EnginSoft

Ottimizzazione in fase di prototipazione virtuale
per ridurre il tempo di sperimentazione fisica



Workshop with prof. Thierry Poinsot

Thursday, May 17 at 15:00, in the Videoconferences Hall of DIMA, there will be a workshop with Prof. Thierry Poinsot, in the picture below, currently Research Director at the Institut de Mécanique des Fluides de Toulouse, CNRS.

Here in the box an abstract of the topic:



Combustion produces more than 80 percent of the world energy. This will not change for a very long time as the global energy growth remains much larger than what new renewable energies can add to the present sources. Our civilization faces a daunting problem: allow the growth of combustion sources but, at the same time, keep global warming as well as pollution under control. The scientific community has a key role in this scenario: it must strive to optimize combustion systems far beyond the present state of the art. To achieve this objective, one promising path is to use High Performance Computation to allow to compute and optimize combustors before they are built. This talk will illustrate these efforts in the field of aerospace propulsion where optimization often leads to the occurrence of complex instabilities where combustion couples with acoustics, leading to unacceptable oscillations of the whole reacting flow. The most famous example of such difficulties is the F1 engine of the Apollo project which required 1330 full scale tests in two years to reach acceptable oscillation levels. The talk will show how simulation (mostly Large Eddy Simulation but also Direct Numerical Simulation) is used to understand and mitigate these problems, both in real gas turbine engines and in laboratory laminar flames.

OPPORTUNITIES FOR RESEARCH, NETWORKING AND INTERNATIONALIZATION



- Now open the Call for Foreign Visiting Professors of Sapienza University for research activities and education. The deadline is fixed on 22 May at 14,00. There are two different type of visiting professor: category A for short term periods of 30 days (for this type of category, only for “outstanding researchers or professors”); category B for long term periods of 90 days, continuously in both cases. Sapienza contribution for each professor amounts to € 5.000,00 for Category A, € 3.000,00 for Category B. The call is available at this link:

https://www.uniroma1.it/sites/default/files/field_file_allegati/bando_professori_visitatori_2018.pdf



- Now open a Call for application for 8 positions of Senior Research Fellows and 8 positions of Junior Research Fellows at «Scuola Superiore di Studi Avanzati Sapienza» (SSAS). Two positions are reserved for early stage researcher with high scientific potential involved in innovation projects at Sapienza University. For Senior Fellows, two positions are reserved for each four Academic Class as full professor at Sapienza University or another relevant international institution. The duration of each professional role is valid for the period 2018-2021. Further information are available at this link:

<http://www.ing.uniroma1.it/archivionotizie/bando-la-selezione-di-junior-e-senior-research-fellows-la-scuola-superiore-di-studi>



- The 6° edition of the national competition called «Premio Studio Torta» is aimed at a master degree thesis or a doctoral thesis on industrial property. In particular, the award is dedicated to the deepening of issues related to the protection and enhancement of industrial property and the management of industrial law of the companies. All those who have discussed a master degree thesis or a doctoral thesis in the period between 1st October 2017 and 30th September 2018 will be admitted to the competition. A prize of 3,000 euros is up for grabs. It's necessary to send the documentation requested and specified in the announcement within 30 September 2018. Further information are available at this link: <http://uniroma1.jobsoff.it/sala-stampa/premio-tesi-sulla-propriet-industriale-0>