

# **27th IAEA Fusion Energy Conference - IAEA CN-258**

**Monday 22 October 2018 - Saturday 27 October 2018**

**Mahatma Mandir Conference Centre**

## **Scientific Programme**

With a number of next-step fusion devices currently being implemented — such as the International Thermonuclear Experimental Reactor (**ITER**) in Cadarache, France, and the **Wendelstein 7-X** stellarator in Greifswald, Germany — and in view of the concomitant need to demonstrate the technological feasibility of fusion power plants as well as the economic viability of this method of energy production, the fusion community is now facing new challenges. The way these challenges are addressed will dictate research orientations in the present and coming decades.

The scientific scope of **FEC 2018** is, therefore, intended to reflect the priorities of this new era in fusion energy research. The conference aims to serve as a platform for sharing the results of research and development efforts in both national and international fusion experiments that have been shaped by these new priorities, and to thereby help in pinpointing worldwide advances in fusion theory, experiments, technology, engineering, safety and socio-economics. Furthermore, the conference will also set these results against the backdrop of the requirements for a net energy producing fusion device and a fusion power plant in general, and will thus help in defining the way forward.

**TOPICS**

Papers on the following topics will be considered for presentation at **FEC 2018** if they are clearly relevant to the development of fusion energy (see also the Scientific Guidelines for Authors).

## **OV - Overviews**

### **EXC - Magnetic Confinement Experiments: Confinement**

### **EXS - Magnetic Confinement Experiments: Stability**

### **EXW - Magnetic Confinement Experiments: Wave–plasma interactions; current drive; heating; energetic particles**

**EXD - Magnetic Confinement Experiments:  
Plasma–material interactions; divertors; limiters;  
scrape-off layer (SOL)**

**THC - Magnetic Confinement Theory and  
Modelling: Confinement**

**THS - Magnetic Confinement Theory and  
Modelling: Stability**

**THW - Magnetic Confinement Theory and  
Modelling: Wave–plasma interactions; current  
drive; heating; energetic particles**

**THD - Magnetic Confinement Theory and  
Modelling: Plasma–material interactions; divertors,  
limiters, SOL**

**PPC - Plasma Overall Performance and Control**

**IFE - Inertial Fusion Experiments and Theory**

**ICC - Innovative Confinement Concepts**

**FIP - Fusion Engineering, Integration and Power  
Plant Design**

## **FNS - Fusion Nuclear Physics and Technology**

## **MPT - Materials Physics and Technology**

## **SEE - Safety, Environmental and Economic Aspects of Fusion**

### **Keynote**

Keynote Presentation

### **Summary**