

## Dr BECOULET Alain



*Knight of the French  
National Order of Merit*



*Member of the Academy of  
Technologies of France*

*36 years of work in Fusion  
French, Fluent in English*

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## Curriculum Vitae



### Present Position

**Deputy Director General – Chief Scientist @ ITER Organization (July 2023-now)**

### Education (French System)

- ✓ **Agrégation de Sciences Physiques** (Ecole Normale Supérieure, 1986, 5°)
- ✓ **DEA de Physique Théorique** (Ecole Normale Supérieure, 1987)
- ✓ **PhD** (Paris-Sud University & CEA, 1987-1990)
- ✓ **Directeur de Recherche @ CEA** (2009-Jan 2020)

### Professional Skills: Science

> 180 publications invited and review contributions in International Conferences (EPS, IAEA Fusion Energy Conference...):  $H_{2020}=34$

#### - Fusion Theory and Modelling

- Hamiltonian approach of wave-particle interaction in tokamaks, heating and current drive, ion cyclotron emission.
- Integrated modelling and tokamak plasma scenarios: setting-up and leading the first European Task Force on Integrated Tokamak Modelling(2003-2006, 100 professionals)

#### - Tokamak Experiment

- Ion Cyclotron Heating and Current Drive: Scientific Coordinator on Tore Supra, JET and DIII-D (ICRH, FWEH/CD, Mode Conversion, LHCD)
- Advanced Scenarios on Tokamaks, and introduction of real time control in such scenarios:
  - EFDA-JET Task Force Leader on Advanced Scenarios (2000-2002, 100 professionals). Editor of a dedicated Special PPCF issue.
  - Tore Supra Task Force Leader on Advanced Scenarios and Power Performance (2002-2003, 30 professionals)

#### - Coordination, Review and Evaluation

- Member of ITPA (2000-2005), and EU member of the ITER Design Review (2007)
- Chairman of the European Topical Group on Heating & Current Drive (2007-2011)
- Member of PPCF Editorial Board
- Member of several Int. Advisory Committees (MAST, C-Mod, DIII-D, EAST, KSTAR, BEST) and Review Panels (DoE, Italian MOST, Thailand fusion programme...)
- Member of EFDA Scientific and Technical Advisory Committee (2002-2010): Monitoring of the EU Labs and Ad-hoc group chairman of the JET programme
- Chairman of the Sc. Com. of the 26th IAEA Fusion Energy Conference (2016, Kyoto), and several times serving as PC member.

### Professional Skills: Management

- 1995 – Oct 2004 : **Head of the Heating & Current Drive Physics Group (CEA/IRFM)** ~ 25 people
- Nov 2004 – Nov 2010: **Head of the Heating & Confinement Department (CEA/IRFM)** ~ 120 people,
- Dec 2010 – Nov 2011: **Deputy Director of CEA/IRFM**
- 2011: **Chairman of the Local Organizing Committee of the EPS Conference** (Strasbourg, France)
- Dec 2011 – Dec 2013: **Director of IRFM** (~ 300 people, 35M€ annual budget) & **Head of Research Unit of the EURATOM-CEA Association**
- Jan 2014 – Jan 2020: **Director of IRFM** (~ 300 people, 32M€ annual budget) & **French Delegate at the EUROfusion General Assembly**
- 2016 – Jan 2020: **Administrator @ CAPENERGIES**, on behalf of CEA
- 2017 – Jan 2020: **Founder and Member of the Board of Directors of the “Sino French Fusion Energy Center” (SIFFER)**, coordinating the fusion R&D activities of CEA, CAS/ASIPP, CNNC/SWIP and MOST/CNDA.
- 2018 – Jan 2020: **Deputy Director @ the Chinese International Fusion Energy Cooperation Center (IFEC)**
- 2020: **Chairman of the Local Organizing Committee of the 28<sup>th</sup> IAEA Fusion Energy Conference (e-FEC)**
- Feb 2020 – June 2023: **Head of Engineering Domain @ ITER Organization** (~ 450 people); *Delegated ITER Design Authority, Chairman of the Configuration Change Board*

### Professional Skills: Personal Development, Awards

- Professor at the Culham European Summer School (UK) for 8 years
- 2004: Cycle de Formation Supérieure (CEA)
- 2018- : Auditeur @ the Institut des Hautes Etudes pour la Science et la Technologie (IHEST Promotion Elinor Ostrom, French Ministry of Research and Education)
- 2019 : Author of « L’Energie de Fusion », éditions Odile Jacob (*in French, translated in Chinese(2022), English(2021) and Dutch(2020)*) and frequent lecturer for institutional, public, press and stakeholder information on fusion
- 2020: Laureate of the “Scientific and Technological Cooperation Award of the People’s Republic of China”
- 2021: Laureate of the “Huangshan Friendship Award of Anhui Province”