

## **CURRICULUM VITAE**

### **Dr. MAURIZIO GASPAROTTO**

Maurizio Gasparotto

He received a Diploma in electrical engineering in 1960 from G. Galilei Technical Institute in Rome.

Since January 1961 he has been with the "Comitato Nazionale per l'Energia Nucleare" (CNEN) now "Ente per le Nuove Tecnologie, l'Energia e l'Ambiente" (ENEA).

He received a doctor degree with honors in physics in 1978 from the University of Rome.

From 1961 until 1964 he worked at the gas Ionizzati Laboratory in the pinch-discharge experiment "CARIDDI.

From 1964 until 1974 he worked at the Direct Energy Conversion Laboratory and he participated in the design and construction of the CNEN MHD helium-caesium blow-down loop.

He has been involved in the analysis of the experimental results and he has developed an analytical model on electrical loss mechanisms in MHD generators. From 1969 to 1974 he was member of the working group on closed cycle MHD.

From January 1975 until December 1976 he was a member of the international group for the design of the Tokamak reactor FINTOR.

During 1977 he was working on the theoretical study about the shielding of a test charge moving through a plasma.

From January 1978 to June 1980 he was responsible for the neutron diagnostics in the Frascati Tokamak (FT) machine

From June 1980 until December 1981 he was jointly responsible in the technical management and operation of the FT machine.

From January 1982 until October 1989 he was the head of the "Machine Load Assembly Group" in the FT Upgrade project.

From 1985 up to 2002 he has been appointed "professore a contratto" (part time professor), at the University of Bologna for a yearly short course on "Engineering Aspects in the Experimental Tokamak Machine".

From November 1989 until March 1994 he was the head of the Technology Division in the ENEA Fusion Department.

From April 1994 until May 2000 he has been the deputy director for the fusion technologies in the Fusion Division at ENEA. He was responsible for more than 110 professionals and technicians organized in four laboratories: mechanical, neutronic, special technologies and superconductivity, and three projects: electromagnetic computation codes, demonstration reactor technologies and safety and environment. The main activities were related to the modifications and improvements of FTU, design and R&D for IGNITOR and PROTOSPHERA, ITER technology tasks.

From June 2000 until May 2003 he has been coordinator of the field “Tritium Breeding and Materials” in the European Fusion Development Agreement (EFDA) Close Support Unit in Garching. The “Tritium, Breeding and Materials” field includes the following areas: Fuel cycle, Materials development, Nuclear Data, Breeding Blankets and IFMIF: the International Fusion Material Irradiation Facility.

From June 2003 until October 2005 he was responsible for the division System Engineering in the Wendelstein 7-X project (IPP-Greifswald). He has organized such Division which includes four departments: Design Office, Electromagnetic Calculation, Design Engineering and System Integration.

From November 2005 until December 2007 he has been EFDA Associate Leader for Technology and European Participant Team Leader (PTL) in the ITER Project. He was responsible for the coordination of the European Fusion Technology program in the Close Support Units in Garching and in Barcelona.

From January 2008 until December 2011 he has been Chief Engineer in the European Domestic Agency “Fusion for Energy” located in Barcelona. He has been responsible for the coordination of the European activities related to the ITER construction from the technical point of view. He supported the Director in organizing and implementing the ITER Department.

In this period, he held some lectures at Universities of Barcelona and Madrid on “Engineering aspects of ITER and DEMO”

From January 2012 until June 2015 he has been Chief Engineer in Wendelstein 7-X project (IPP-Greifswald).

From 2013 up to 2015 he has been chairman of the ITER TBM Program Committee.

From July 2015 up to now he has been involved in supporting (part time) the “In vessel component team of Wendelstein 7-X in Garching and in participating to a number of assessments and design reviews in EUROfusion (Garching) in the fields of DEMO Superconducting Magnets, Breeding Blankets, Structural Materials and Facilities. He has been also chairman of a panel for the assessment of the costs of the Frascati tokamak DTT.

He has been ENEA member in the Fusion Technology Steering Committee (FTSC-I), in the JET Scientific Council and in the Comitato Tecnico Scientifico del Consorzio RFX (Padova).

He has also been editor of the international journal “Fusion Engineering and Design”; member of the Scientific Committee of the “Department de Recherches sur la Fusion Controlée” (CEA), of the Organizing Committee of the Symposium on Fusion Technology (SOFT) and of the International Standing Committee of ISFNT (International Symposium on Fusion Nuclear Technology).

## PUBLICATIONS

He is author or co-author of more than 130 technical reports, publications and contributions to conferences mainly on the following fields:

- MHD Power Generation Experiments;
- FT machine: experimental results;
- FTU machine: design and construction;
- IGNITOR machine: design and R&D;
- Reactor relevant materials and Breeding Blanket design,
- Wendelstein 7-X machine: design and tests;
- ITER and DEMO.