




FED SI:DTT Author list with biographies and photos



| Name Email | Biography and photo |
|---|---|
| Luigi Affinito luigi.affinito@enea.it |  <p>Luigi Affinito was born in Anzio (Rome) in 1971. He has a technical high school diploma which qualifies him as expert in electronics. Since 2000 he's working in ENEA. His fields of activity are the hardware and software implementation of the data acquisition system for the experimental test facilities, and the care and maintenance of the vacuum systems and cryogenics equipment. He actively participated in the cryogenic testing campaign of the by-pass protection diodes and HTS current leads for the dipole and quadrupole magnets of LHC at CERN and in the manufacturing activities for the superconductive conductors of the ITER TF and PF magnet in collaboration with ICAS. He's author and co-author of several scientific articles, most of which on international eminent trade journals.</p> |
| Piero Agostinetti piero.agostinetti@igi.cnr.it |  <p>Piero Agostinetti received the M.S. degree in mechanical engineering for the University of Padua, Italy, in 2003 and the Ph.D. in energetics from the same university in 2008. Since 2005, he has been with Consorzio RFX, Padova. His research interests include thermo-structural non linear analyses, computational fluid dynamics analyses, optics analyses of particle beams, design of high heat flux components, multi parametric optimization of extraction/acceleration systems for ion beams, analysis of calorimetric measurements in fusion experiments. Since 2006, he has collaborated as lecturer with the University of Padua. He has authored or coauthored over 70 publications in technical journals and referred conferences, and is the holder of an Italian patent.</p> |
| Raffaele Albanese raffaele.albanese@unina.it |  <p>Raffaele Albanese received the degree in aeronautical engineering (<i>magna cum laude</i>) and the Ph.D. degree in electrical engineering from Univ. Napoli, Italy, in 1982 and 1987, respectively. He was a member of the NET Team in Germany from 1983 to 1986. From 1986 to 1994, he was at the Univ. Salerno, Italy. From 1994 to 2006, he was at the Univ. Mediterranea di Reggio Calabria, where he served as Head of the DIMET Department and Dean of the Faculty of Engineering. Since 2006, he has been a Full Professor in electrical engineering at Univ. Napoli Federico II, Italy. He collaborated to the design of ITER from 1989 and in 1997 he was visiting scientist at the ITER JCT (Naka, Japan). He is a Scientific Consultant of the CREATE Consortium, Italy. He has been the coordinator of research projects with various institutions including Rolls Royce Group, CNR, ENEA, EURATOM, F4E. He was a Project Manager of JET EP2 Project "Plasma Control Upgrade". He is the Project Leader of EUROfusion Work Package WPDTT2 "Definition and design of the Divertor Tokamak Test facility".</p> |

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Roberto Ambrosino received the degree in automation engineering (*magna cum laude*) from Univ. Napoli, Federico II, Italy, in 2006 and the Ph.D. degree in Information engineering in 2009. Since 2009, he has been an Assistant Professor in automation engineering at Univ. Napoli Parthenope, Italy. He is a Scientific Consultant of the CREATE Consortium, Italy. His current research interests are in nuclear fusion, control engineering and plasma modelling. He is the Activity Manager of of EUROfusion Work Package WPD TT1-AC3 "Assessment of alternative divertor geometries and liquid metals PFCS - Equilibrium Generation".

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Alessandro Anemona was born in Rome on January 31st, 1977. He graduated in Mechanical Engineer in 2004 with a thesis on Handling performance optimization of a car by means of multibody techniques and F.E.M.. From 2005 till 2007 we worked as consultant for different private companies as Mechanical Designer, Structural Engineer and F.E.M. analysis responsible. In 2007 he became Design Office Manager for an Italian group (IM.EL.TEL) where he was in charge of 3D modelling, analysis and design, Project for BHS system, Working drawing and Design and Development of new machines for luggage handling in the airports. Since 2012 he works for ICAS (Italian Consortium for Applied Superconductivity) as Design Office Manager and deputy Production Manager. He's author and co-author several scientific articles, most of which on international eminent trade journals.

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Maria Laura Apicella (Laurea di Dottore in Fisica, Università degli Studi di Roma-La Sapienza, Italy, 1980) has been in charge of FTU wall conditioning and vacuum optimization. She is involved in the study of the possible application of a liquid metal as first wall material for a future reactor. This investigation aims to expose liquid metal limiters to the plasma of FTU to test both lithium and tin under relevant thermal loads. Her research interests include plasma-wall interactions and physics of surface processes.

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Marco Ariola was born in Naples, Italy, in 1971. He received the Laurea degree in Electronic Engineering (*magna cum laude*) and the Research Doctorate degree in Electronic Engineering and Computer Science from the University of Naples Federico II, Naples, Italy, in 1995 and 2000, respectively. Currently, he is a Full Professor of Automatic Control at the University of Naples Parthenope in the Engineering Department, where he is the Coordinator of the PhD Programme in "Information Engineering". He has spent long periods at research laboratories for controlled thermonuclear fusion, and particularly in Naka, Japan and at JET, UK. His research interests include robust control, control of nuclear fusion devices, control of aerospace systems. His research activity is documented by more than 150 international publications, appeared as articles in international journals or conference proceedings. He is also co-author of two monographs for Springer-Verlag ("Magnetic Control of Tokamak Plasmas", and "Finite-Time Stability and Control") and of the chapter on "Input-Output Stability" for the "Wiley Encyclopedia of Electrical and Electronics Engineering". He is an IEEE Senior Member since 2006.

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Lucio Barbato (Benevento, 26th August 1986) received the master degree in 2011 (*magna cum laude*) in Energy Engineering at University of Sannio-Benevento (Italy) and in 2015 he received the Ph.D. in Electrical Engineering and Computer Science at University of Cassino (Italy). In 2011, he was a visiting Erasmus Placement student at the JET laboratories (Culham, Oxfordshire, UK). During his Ph.D., he was a visiting researcher on several international laboratories and research centres, working on electromagnetic modelling applied to nuclear fusion devices and non-destructive testing and evaluation. In 2015, he was awarded an EUROfusion Engineering Grant defined in the framework of the Fusion Roadmap in Horizon 2020. His expertise covers several aspects of the electromagnetic modelling with application in nuclear fusion technology and non-destructive testing. He is author/co-author of about 15 scientific contributions in international journals and conference proceedings.

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Paola Batistoni is a Research Director of ENEA where she has been working on Fusion since 1984. In particular, she has been Principal Investigator of numerous neutronics experiments at the 14-MeV Frascati Neutron Generator in support of ITER nuclear design and in the frame of the European Fusion Technology Program. She has been Head of the Neutronics Section and of the Technology Transfer Unit of ENEA Fusion Department, and ITER Industry Liaison Officer for Italy. She is presently Project Leader of the EUROfusion Work Package *Technological Exploitation of JET Deuterium Tritium operations*.

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Marco Evangelos Biancolini received the degree in Mechanical Engineering and Ph.D in Mechanical System Design from the University of Rome “Tor Vergata” where he works as an Assistant Professor since 2000. He is an expert of shape optimization using mesh morphing, fluid structure interaction, vehicle design and advanced structural analysis. Author and reviewer for several international Scientific Journals, he is currently focused on Radial Basis Functions theory and its numerical HPC implementation. Within the FP7 he has successfully coordinated the WP515 of Fortissimo, the WP2 of RBF4AERO and the RIBES project. He is an honorary member of the Technet Alliance since 2014 and a partner of ANSYS Inc. since 2009. In the field of fusion he is active in the structural design of the WP of DEMO since 2013 (WPMAG) and he works as an expert for Fusion4Energy in the field of fracture mechanics. He is the author and the owner of the mesh morphing software RBF Morph.

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Tommaso Bolzonella received the degree in physics (*magna cum laude*) and the Ph.D. degree in Energetics from Padova University, Italy, in 1993 and 1997, respectively. He is senior researcher at Consorzio RFX (Italy). His main research interests cover plasma MHD stability and its active control, both in experiments and numerical modeling and operational scenario development. He is in the list of experts of the ITPA MHD, Disruption & Control Topical Group. He is member of the European Physics Unit in the European Home Team of JT-60SA programme. He is currently Deputy Leader of EUROfusion Task Force MST1 “Medium-Size Tokamak Campaigns”.

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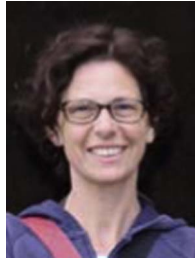
Alessandro Bruschi graduated in Physics with full marks at University of Milano, Italy, in 1987. He worked as Technologist at the Plasma Physics Institute of the National Research Council of Italy, in Milano, from 1989 to 2001, on the design of the quasi-optical launching system and transmission line components for the ECRH system at 2 MW for the FTU tokamak, in ENEA, Frascati, and participating to the experimental activity and the data analysis. From 2001 to present, he works as researcher at the Plasma Physics Institute, in charge of the design of millimeter-wave components at high power (launchers and calorimetric loads, in particular for the loads for the EU Gyrotron) and contributing to several Grants with F4E and EUROfusion for the development of ITER and DEMO ECH launchers. He participates to the experiments on the FTU tokamak, being proponent and Principal Investigator of an EUROfusion Enabling Research project based on the CTS Diagnostics on FTU, running from 2014 to 2017.

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Giuseppe Calabrò received the degree in Electronic Engineering and the Ph.D. degree in Electronic Engineering from Univ. Mediterranea of Reggio Calabria, Italy, in 1999 and 2003, respectively. He was visiting PhD student at JET facility (Culham Science Centre), in UK, from 2001 to 2003. From 2003 to 2008 he was PostDoc in Nuclear Fusion programme at E.N.E.A. in Frascati, Italy. Since 2009 he has been Researcher at E.N.E.A. in Frascati, Italy. From 2008 to 2013 he was Adjunct Professor in Electrical Engineering at University of Basilicata, Italy. In 2012 he got the Full Qualified Session Leader License at JET tokamak. His current research interests are in nuclear fusion, computational electromagnetics, and plasma engineering.

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Alessandra Canton graduated in Physics at University of Padova, Italy, in 1997 and in 1998 took the diploma of post-graduate course in Plasma Engineering for Controlled Thermonuclear Fusion at the same University. She received the Ph.D. degree in Energetics at Univ. Padova in 2001. Since 2001 employee of Consorzio RFX, Padova, as Research Physicist, her research activity is focused on diagnostics for fusion experiments and, more recently, on the topic of plasma wall interaction, wall materials and conditioning for fusion devices. She is leader of the SX-D group (technical department for diagnostics) at the RFX-mod experiment since 2009 and Task Leader of ‘Task 4: Vacuum, Gas injection and First wall conditioning systems’ for the Consorzio RFX Project : Design of RFX-mod2.

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Alessandro Cardinali received the degree in Physics from University of Milan, Italy, in 1978. From 1979 to 1983 he was EURATOM scholarship holder, at the CEA (Grenoble) and Institut Nationale Polytechnique de Grenoble (INPG). In 1983 reached the Frascati Research Center of the CNEN (after ENEA) as staff scientist in the theory division in which actually is a senior scientist “dirigente di ricerca”. He is an expert of propagation and absorption of electromagnetic waves in laboratory & astrophysical plasma in linear and nonlinear regimes, Vlasov & Fokker-Planck codes, symplectic numerical integration of Hamiltonian systems. He is fellow of the Italian GNFM (Gruppo Nazionale di Fisica-Matematica) of the INDAM (Istituto Nazionale di Alta Matematica).

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Lorella Carraro received the degree in Physics (magna cum laude) from Padova University, Italy, in 1984. She obtained in 1986 the degree of Specialization School in Plasma Engineering and Controlled Thermonuclear Fusion and in 1989 the PhD degree in Energetics, both from Padova University. Since 2008 she is the group leader of the Spectroscopy group at Consorzio RFX. She was and is involved in experimental campaigns in several RFP and Tokamak devices, her main scientific interest concerns spectroscopic diagnostics and impurity transport modelling.

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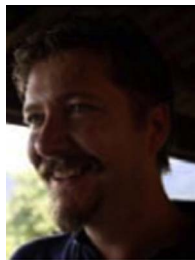
Antonio Castaldo received B.Sc and M.Sc degree in management engineering (both magna cum laude) from Univ. Naples, Parthenope, Italy, in 2012 and 2015 respectively. Since October 2015, he is a Ph.D. student of Joint European Doctorate in Fusion Science and Engineering, Univ. Naples, Federico II. His research interests are in nuclear fusion, control engineering and plasma modelling. He is involved in EUROfusion Work Package WPD11-AC3 "Assessment of alternative divertor geometries and liquid metals PFCs - Equilibrium Generation".

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Roberto Cavazzana received the degree in physics, the master degree in engineering and physics of plasmas and the Ph.D. degree in energetics from Università di Padova, Italy, in 1994, 1995 and 1998 respectively. Since 1998 he is at Consorzio RFX, Padova as research physicist. His main areas of interest are plasma diagnostic (microwave reflectometry, magnetic measurements and Langmuir probe), edge physics and real time plasma controls.

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Expert of Fusion devices control systems and employed by Fusion For Energy (F4E) M. Cavinato coordinates F4E activities in support to ITER in the field of plasma control, Electron Cyclotron plant control and components qualification and contributes to the coordination in the broader field of plasma engineering. Graduated with full marks in 1997 in Electronic Engineering at Padua University with a thesis on the plasma control system of ITER, M. Cavinato started his career working for ITER in the Joint Central Team in Naka Japan. In 2000 he went back to Italy to work for RFX-mod. He became responsible for the plasma position control system and contributed to the Magneto Hydro Dynamic (MHD) control system which significantly enhanced the experiment performance. M.Cavinato completed his Ph.D in Energetics in 2005 with a thesis on 2D and 3D control of fusion experiments. In the same period he continued working for ITER in the field of plasma control and operation and in 2008 he was employed by F4E, the European agency in charge of the EU contribution to the ITER project.

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Silvio Ceccuzzi received the 1st and 2nd level Italian degrees (*cum laude*) in electronic engineering and the Ph.D. degree in applied electronics from “Roma Tre” University, Italy, in 2005, 2008 and 2015, respectively. After an internship in Telespazio and another one in Thales Alenia Space, in 2009, he started a 3-years scholarship for scientific training across European labs on high-power RF systems. In 2013 he joined ENEA for EUROfusion, Frascati, Italy as a researcher. His main interests are nuclear fusion and high-power microwaves. Dr. Ceccuzzi is the author/co-author of more than ninety works on technical reports, journals, and conference proceedings. He received the 2015 IEEE MTT-S award of the Chapter central and southern Italy and the “Sannino” award of the Italian meeting RiNEm 2012.

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Cristina Centioli received the degree in Physics (Quantum Optics, *magna cum laude*) from the University of Rome “La Sapienza” in 1988. From 1988 to 1993 she worked as a system programmer and database manager within the information technologies for the Italian tax administration. From 1993 onwards she has been a member of the Frascati Tokamak Upgrade (FTU) team, specializing in control and data acquisition systems. Since 2013 she is coordinator of the FTU CODAS (Control and Data Acquisition Systems) team. Her current research activities are mainly related to the design of control systems for nuclear fusion related projects (ITER Radial Neutron Camera, Early Neutron Source within the EUROfusion work package WPENS).

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Sergio Ciattaglia received the degree in Electrical Engineering in 1973 at Rome La Sapienza University. After working 3 years in the Italian railways company, in charge of operation and maintenance of electrical and safety systems, he got the specialization in Nuclear Safety and Radioprotection at Pisa University in 1977. He spent 12 years in the licensing of Nuclear Power Plant in Italy responsible of Safety Electrical and I&C systems, then, from 1989 till 2000, he worked at ENEA Fusion Department in Frascati, first leading the safety group for ENEA activities on NET/ITER (4 years), then as Director of the Tokamak FTU (1994-1998), and finally as manager of ENEA technology activities in Europe for Fusion (1999-2000). In 2000-2003 he was Fusion Technology and Operation RO at EFDA-CSU_JET (UK), then, he worked 3.5 years in Garching as EFDA Safety group RO. From the end of 2006 till the end of 2013 he was member of ITER Licensing Division in Cadarache. From 2014 is RO for Safety, Balance of Plant and Systems Integration of DEMO at EUROfusion PMU in Garching.

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Domenico Coccorese: Degree in Physics, Univ. of Rome (Università degli Studi di Roma Tre), 2014. Employee at CREATE Consortium 2015 -2017. Research interests: Nuclear Fusion, Virtual Reality, Software engineering, CAD.

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Vincenzo Coccorese: Degree in electronic engineering (*magna cum laude*), Univ. Napoli, Italy, 1972. Ministerial grant holder, Univ. Napoli, 1973-1977. Member of the JET Team, Culham Laboratory (UK) 1975-1978. Lecturer of Electrical Engineering, Univ. Napoli, 1978-1982. Associate Prof. of Electrical Engineering, Univ. Napoli, 1982-1986. Member of the NET Team, Garching (Germany) 1983-1985. Full Prof. of Electrical Engineering at Univ. Reggio Calabria 1986-200 and at Univ. Napoli “Federico II” 2001-2017. Head of the School of Engineering, Univ. Reggio Calabria, 1989-1999. Vice Rector, Univ. Reggio Calabria, 1999-2001. President and legal representative of the CREATE Research Consortium, 1992-2017. Project Leader of the JET Enhancement on Magnetic Diagnostics, 2002-2006. Project Manager in the Operations/Enhancement at EFDA-JET, 2006-2010. Coordinator of the CREATE Group for the Association EURATOM-ENEA, 1996-2013. Coordinator of the CREATE Group for the EUROfusion Grant Agreement, 2014-2017. Research interests: Nuclear Fusion, Plasma Engineering, Computational Electromagnetics.

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Andrea Colangeli was born in Italy in 1989. He received the degree in Nuclear Engineering in 2015 from “La Sapienza”, university of Rome with thesis: “qualification of the national dosimeter centre of Italian Fire Brigade”. In the first part of 2015 He was at the Italian National Research Council (CNR) for the training of I level of radiation protection Qualified Expert. After, He was at department of basic and applied sciences for engineering (SBAI) at Sapienza, University of Rome, where He worked on the nuclear waste characterization and Monte Carlo simulation. Currently, He collaborates with neutronic ENEA group for Monte Carlo calculations applied to DTT and FNG. His current research interests are in nuclear fusion, neutronic and nuclear measurements.

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Valentina Corato graduated in Physics (*magna cum laude*) in 2000 at the University of Rome, Italy, where she got the Ph.D. degree in Science of Materials in 2004. As a Post Doc researcher, she was responsible of the cryogenic laboratories at the Second University of Naples, where she worked on networks of Josephson devices for applications in the field of the Quantum Computation. Since February 2007, Valentina Corato has a researcher position at ENEA of Frascati for the characterization of transport and magnetic properties of superconducting wires and cables for fusion. From 2012 to 2016, she has coordinated the activity of the ENEA team in the “National Facility for Superconducting SYstems” PON project, aimed to build a facility with a large bore superconducting magnet for testing high power components at high magnetic fields. Since 2016, she is the Project Leader of the EUROfusion Magnet Work Package for the pre-conceptual design of the DEMO magnets.

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Pietro Costa was born in Rome, Italy, in 1952. He received the master’s degree in electrical engineering from the University “La Sapienza”, Rome, in 1975, with a high power hydrogen cooled turbogenerator thesis. He passed the government exam, licensed as a Professional Engineer, and enrolled as a member of the Italian Engineering Society of Rome, in 1976. After fellowships at CNEN Frascati Research Center, Frascati, Italy, and at Commissariat à l’énergie atomique - Division pour la physique de particules elementaires - Centre d’Etudes Nucléaires de Saclay, France, he was Researcher with ENEL - Electrical Research Center –Milan, Italy. He joined CNEN, now ENEA, as a Researcher, in 1980, and participated to the design, assembly, and commissioning of FTU power supplies. During the whole period, he alternately covered roles of works director and of works inspector, and, with his skills in finite elements modeling and in electromagnetic measures, developed for nuclear fusion, he successfully performed a nuclear fusion spin off at Acciaierie Arvedi Cremona, Italy. Now he is involved in international nuclear fusion experiments such as PROTO-SPHERA, ITER, JT-60SA, and DTT.

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Flavio Crisanti received the degree of Doctor in Physics (*magna cum laude*) from the University La Sapienza of Rome in 1978. He got an ENEA fellowship from 1978 to 1982. That year he got a stable researcher position in the ENEA Fusion labs in Frascati where he was in charge of the magnetic measurements on FT, developing the Equilibrium codes FIXFREE and ODIN an participating to the realization of the Tokamak FTU. In 1990 he became the responsible of the FTU operation group. During 1997 he reinforces his collaboration with JET, where becomes responsible of the eXtreme Shape Control (XSC) project (2000-2004). From 2001 to 2007 he is deputy Task force leader of the JET Advanced Scenarios (S2), and during 2005-2009 leads the JET PCU project (the complete rebuild of the vertical control system). From 2009 to 2014 he leads the FAST team and from 2014 coordinates the Italian team for the DTT design. During these years he is also member of the TAP and of the European Panel for the EU-China Agreement.

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Antonio Cucchiario received the degree in Nuclear (*magna cum laude*) and Mechanical engineering from Univ. la Sapienza Rome, Italy, in 1978 and 1982, respectively. He worked at SNIA-TECHINT in nuclear fuel handling and post-irradiation testing plants design of Fast Breeder Reactor PEC, from 1979 to 1983. From 1983 to 1988, he was at ENEA-Casaccia in the field of Renewable Energy. From 1988 to 1994, he worked at ENEA-Frascati as responsible officer for the procurement and commissioning of additional heating system on FTU Tokamak, and he was ENEA Project Manager for the construction of TJ-II heliac project. From 1994 to 2010, he was involved in the IGNITOR design and procurement of relative full size prototypes and PROTO-SPHERA, FAST and JT-60SA mechanical design. Currently, he work as project manager for ENEA Broader Approach activities and he is responsible for the procurement arrangement of the toroidal superconductor magnet and power supply for the JT-60SA Tokamak, in assembly at Naka (Japan).

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Marco de Baar is head of the nuclear fusion department of the NWO institute DIFFER and a full professor at the Eindhoven Technical University. His interests are on various aspects of plasma control and plasma wall interaction.

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Antonio della Corte was born in Bolzano Italy, on October 4th, 1957. He graduated in 1982 in Mechanical Engineering, obtaining in the very same year the engineering licence. His first employ was as Construction Site Manager for an Italian company called Società Lavori Porto della Torre (VIANINI Group) to build great civil works. Then, since 1986, he has been employed in ENEA as researcher dealing with stress analysis in superconducting conductors and coils. In those years he got a very good experience either in cryogenics and in applied superconductivity. Since 2003 he is Head of the Superconductivity Division of the Fusion and Nuclear Presidium Unit at ENEA, leading a staff of about 30 people. He founded the Italian Consortium for Applied Superconductivity (ICAS) in 2010 and since then he is ICAS President. He's author and co-author of more than 50 scientific articles, most of which on international eminent trade journals, collaborating also as expert referee in the selection of newsworthy papers for publication and chairing many sessions in international conferences devoted to fusion and superconductivity.

Massimiliano de Magistris

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Massimiliano de Magistris received the Laurea degree in Electronic Engineering (magna cum Laude) and the Ph.D. degree in Electrical Engineering from University of Naples FEDERICO II in 1991 and 1994, respectively. From 2001 he is Associate Professor of Electrical Sciences at Department of Electrical Engineering and Information Technology, University of Naples FEDERICO II. From 1994 to 2001 he has been Research Associate at the same Department. From 1992 to 1993 he was visiting Researcher at the "Gesellschaft fuer Schwerionenforschung" (GSI), Darmstadt, Germany, working on magnetic plasma lenses for Inertial Confinement Fusion (ICF). His research interests have been in the wide area of applied electromagnetics, including plasma engineering, electromagnetic compatibility, non linear circuits and complex networks. He has been author of about 80 peer reviewed scientific papers for international journals, conferences and book chapters.

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Gianluca De Marzi received his M.Sc. in Physics (*cum laude*) and Ph.D. in Material Sciences from the University of Rome "La Sapienza", Italy, in 1996 and 2000, respectively. After a 2-year experience at CNRS (Orsay, Paris), he continued his studies on applied superconductivity and experimental condensed matter physics at the Institute of Material Science in Valencia (Spain, 2 years) and at the Tyndall Institute, University College Cork (Ireland, 2 years). He joined the Superconductivity Lab in ENEA in year 2006, where he still works as researcher. His current research activities are focused on the design and manufacturing of high-temperature superconducting (HTS) conductors and coils for nuclear fusion applications, within the framework of a scientific collaboration with the Massachusetts Institute of Technology (Cambridge, USA), Tufts University (Medford, USA) and the Italian company TRATOS CAVI SpA.

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Gianmaria De Tommasi born in Milan, Italy, in 1975. He received the Laurea degree (*summa cum laude*) in Electronic Engineering and the Research Doctorate degree in Computer and Automatic Engineering from the University of Naples Federico II in 2001 and 2005, respectively. He is currently Associate Professor of Automatic Control with the Department of Electrical Engineering and Information Technology of the University of Naples Federico II. Since 2002 he has been visiting researcher at the JET (UK), at the ITER Organization (France), and more recently at the EAST (People's Republic of China), where he has participated to various projects connected to the plasma magnetic control systems. He has published more than 200 journal and conference papers, and he is co-author of the monograph titled "Finite-Time Stability and Control", published by Springer. Prof. De Tommasi is a member of the IEEE Control System Society Conference Editorial Board, and he has been Guest Editor of the Fusion Engineering and Design special issue titled "Design and implementation of real-time systems for magnetic confined fusion devices".

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Giuseppe Di Gironimo is Associate Professor in Design and Methods of Industrial Engineering at the Univ. of Naples Federico II. Having graduated (cum laude) in Mechanical Engineering (1999), he received the Ph.D. in Mechanical Design (2002). In 2014 he received the National Scientific Qualification for Full Professor. In 2001/2002 he worked at the Fraunhofer Institute for Computer Graphics in Darmstadt (Germany). He is author of about 150 scientific papers as result of research activities covering the area of Geometric Modelling, Virtual Reality (VR), Ergonomics, Maintainability, Mechanical Design, Product Innovation, Concept Design, Tolerance Design and Robust Design, Fusion Engineering Design. He is the Head of the Virtual Reality Lab “VRTEst” and of the “IDEAinVR” Lab (Interactive Design and Ergonomics Applications in VR). He is the Head of Mechanical Design Unit at CREATE Consortium. He is Administrator of TEST Scarl (www.testcdc.it). He is member of the Scientific Board of CREATE Consortium.

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Aldo Di Zenobio received his degree in Physics in 1999, at University La Sapienza in Rome (IT). After a brief experience as software engineer at IBM, he started to work for ENEA in year 2000, in the Superconductivity Labs at Frascati. Here he developed his main know-how, focused on the design and manufacturing of superconducting conductors and coils for high-power applications, mainly for Fusion Reactors. In addition to the R&D activities, in year 2010 he became member of the Board of Directors of ICAS (Italian Consortium for Applied Superconductivity) and its Technical Responsible. With this company, he had the chance to address the production of more than 100km of superconducting cables and different superconducting devices. In ENEA, he is currently the responsible of the design team for the DTT (Divertor Tokamak Test facility) magnetic system.

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Basil P. DUVAL Open scholarship to read Natural Science, Oxford University 1977. Received BA (First class Honours), MA and D’Phil (1986) from Oxford University. Joined the CRPP(SPC), Lausanne, to work as an Experimental Physicist on the TCA tokamak. Joined the TCV team 1990 to work on many diagnostic systems including Spectroscopy, Neutral Particle Analysis, Machine and Plasma control, Auxilliary heating schemes etc. Organised the TCV diagnostic array since 1995- > present day. Designed and constructed computing plant across TCV and CRPP from ~1990 to the present day including the construction of a Real-Time plasma acquisition and analysis system. PhD supervisor for ~10 past and 3 present students and supervisory role for 3-5 post.

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Daniela Farina graduated in Physics in 1980 at the Milan University and at present is senior researcher at Istituto di Fisica del Plasma (IFP), CNR, Milano Italy, where she lead the IFP-CNR Group of "Physics and Technologies of Plasma and Thermonuclear Fusion" from 2011 to 2016. Her main research interests are magnetic confinement fusion, wave-plasma interaction physics, r.f. theory and modelling in plasmas, in particular for electron cyclotron (EC) wave propagation, absorption and current drive. She acted as Project Leader of the “Heating Current Drive and Fast Particles Project” of the EFDA Task Force on Integrated Tokamak Modeling (ITM) in 2010-2013. Since 2009 she is participating in Fusion for Energy Grants for the “Design, analysis and documentation to produce the ITER ECH&CD Upper Launcher Final Design, as Scientific Coordinator of the Task "Physics Performance Analysis", and in ITER contracts for the EC launchers optimization.

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After graduating at Scuola Normale Superiore (Pisa, Italy) Giuseppe Gorini carried out his research at the Plasma Physics Institute of the National Research Council and at the Physics Department of Milano University. In 1998 he joined the Physics Department at Milano-Bicocca University where he currently professor of experimental physics. His research interests combine R&D in neutron and gamma spectroscopy instrumentation for plasma and material science. The instrumentation is developed for tokamak facilities (mainly JET) and neutron sources including ISIS, the spallation neutron source in UK, and the European Spallation Source. His scientific production is documented in about 240 journal papers.

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- ITER project, within the Task No F4E-OMF-331-02-01-01 - "Engineering support in the area of Test Blanket Module (TBM) systems design and technological demonstration", in partnership with KIT and ENEA.
- Design and development of Water Cooled Lithium Lead Breeding Blanket of DEMO fusion reactor in collaboration with ENEA Brasimone research centre

- Design and structural analysis of DEMO Vacuum Vessel in collaboration with ENEA Frascati Research Centre and Eurofusion Programme Management Unit in Garching
- Design and integration of DEMO In- Vessel Components in collaboration with Eurofusion Programme Management Unit in Garching

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Riccardo Righetti achieved the master degree in Materials Engineering in 2000, at the University “La Sapienza” in Rome. Starting from the 2001 he worked in a Refinery of the “Group Total” in Rome in the Inspection Department until he became responsible in 2008. Among the main tasks there was to carry out corrosion analysis with nondestructive tests and assess the integrity of the plant (reactor, vessels, piping and pipelines), as well as to ensure compliance to the legal requirements of all pressure equipment. In 2012 he changes role and, as a middle manager, reached the Production department with the pivotal task to facilitate the integration and unification of two production sections (Power Supply and Off-site Production and Storage). Since 2013, changing business sector, he joined as a Deputy Production manager, the ICAS s.c.r.l., a subsidiary of ENEA, which produces superconductive innovative cables and devices (in collaboration with two private companies) for customers such as ITER, CERN, Universities and international research institutes.

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He graduated in Physics in 1978 with a thesis on He superfluid at the University of Padua, Italy. He then worked on the Eta-Beta II Reversed Field Pinch plasma experiment in Padua, developing several spectroscopic diagnostics and a cryogenic deuterium pellet injector. He has been working on the RFX Reversed Field Pinch project (Padua) since the 80's, first designing several VIS to SXR spectrometers for impurity studies (sources and transport) to then move to the realm of turbulence studies by developing Gas Puffing Imaging (GPI) and Thermal Helium Beam (THB) diagnostics. For the latter approach He has collaborated with C-mod (Cambridge, USA), NSTX (Princeton, USA) and W7-X (Greifswald, Germany). His current interests include the exploitation of new detector technologies such as Silicon Photo-

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- contributed (2008-2015) to the project F4E-ENEA for the joint implementation and procurement of the Poloidal Fields and Fast Plasma Position Control Coils Power Supplies for Programme B.A.-JT.60SA
- contributed (2015-2016) to the design for the layout of building and EHV/MV power supplies and electrical distribution system for the Divertor Tokamak Test (DTT) device.

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He was the Project Leader of EuroFusion work package WP14-MST2-10 in 2014 and 2015 (“Implementation of multichannel edge density profile reflectometer for ICRF antenna on AUG.”). He was the coordinator of ENEA team of IPP-ENEASIPP collaboration for realization of the “new 3-straps ICRF antenna for AUG “ (2013-2015). Since 2015 he is the Responsible of ENEA Laboratory for Magnetic Confinement Experimentation which includes FTU tokamak and Protosphaera devices.

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Vincenzo Vitale received the degree in electronic engineering from University “La Sapienza” of Rome, Italy, in 1986. In 1988 he started to work for ENEA in the FTU CODAS (Control and Data Acquisition System) group. He designed and implemented the process of SW automation for the control, monitoring and supervision of the FTU shots evolution. In 1994-95 he designed and implemented the new SW architecture of the FTU Control System. From 1998 to 2011 he was responsible of the FTU PCS (Plasma Control System). In 2002 he designed and implemented the new FTU Gas Density Real-time Control System. In 2003 he was involved in an enhancement of the JET real-time system. In 2005-2006 was the Italian member of the European task force aimed to perform the review of the ITER CODAC system. In 2010 he designed the SW architecture to adopt the ITER CCS (CODAC Core System) for a FTU Power Supply. From 2012 to 2015 he was head of the Technology Dissemination Service of ENEA Fusion Unit. His current research: Control Systems and Remote Participation for nuclear fusion experimentations.

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Gregorio Vlad received the degree in Physics and the Ph. D. degree in Physics, from the University of Rome (Italy), in 1981 and 1987, respectively. From 1984 he is a permanent staff Researcher at ENEA Fusion Division. In the past he joined as a visiting physicist several institutions (MIT (USA), JET-Culham (UK), Chalmers University (Sweden), CRPP-EPFL (CH), Max-Planck-Institute für Plasmaphysik, Garching (Germany)). His research interests include theory and numerical simulation of magnetohydrodynamic stability, Alfvén modes in the presence of energetic particles, energy transport in thermonuclear plasmas. He is author of more than two hundred publications in international journals and conferences. At present, he is the Head of the Theory, Simulation and Modelling Laboratory, Plasma Physics Division, Fusion and Technology for Nuclear Safety and Security Department, ENEA. He is also Task Coordinator of the "Fast-ion MHD interaction" activities within the EUROfusion "Code Development for Integrated Modelling Project" Work Package (WPCD).

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Roman Zagórski was born in Wrocław, Poland, in 1957. Roman Zagórski is a Professor in the Institute of Plasma Physics and Laser Microfusion in Warsaw where he has been working since 1983. He is the leader of the theory and modelling group and his research activities are focused on numerical simulations of plasmas in tokamaks. He received the M.S. degree in applied physics from the Military Technical University of Warsaw, in 1983, the M.S. degree in applied mathematics from the University of Warsaw in 1986. He obtained the Ph.D. degree and Habilitation in physics from the Institute of Nuclear Problems (now the National Centre for Nuclear Research) in Otwock in Poland in 1992 and 1999, respectively. His research interests have been focused on theoretical investigations and numerical modeling of magnetically confined plasmas, resulting in over 100 published papers as author or coauthor. In years 2008-2011, he worked as the Plasma Wall Interactions Responsible Officer at the EFDA CSU Garching and since 2012, he is leading Polish fusion programme being the Head of the Research Unit.

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Roberto Zanino received the M.Sc. degree in nuclear engineering (*magna cum laude*) and the Ph.D. degree in energetics in 1984 and 1989, respectively, from Politecnico di Torino (PoliTo), Italy. He spent long periods at the Max-Planck Institut fuer Plasmaphysik in Garching, Germany, and at the MIT Plasma Science and Fusion Center in Cambridge (MA) USA. Since 2000, he has been a Professor of nuclear engineering at Dipartimento Energia, PoliTo, and since 2011 he is the Head of graduate studies in Energetics at PoliTo. He is the author or coauthor of 150+ papers in international journals, devoted to computational modeling in different fields of relevance for nuclear fusion (superconducting magnets and cryogenics, plasma-wall interactions, high heat flux components, ...), nuclear fission (Gen-IV lead-cooled fast reactors) and concentrated solar power (central tower system receivers). Prof. Zanino is senior member of the Institute of Electrical and Electronic Engineers (IEEE) and a member of the American Nuclear Society (ANS).

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Loris Zanotto was born in 1974. He graduated with honors in Electrical Engineering in 1999 from the University of Padova. He has obtained a Ph.D. from the same University in 2002, working on very high power inverters for thermonuclear fusion experiments. He is with Consorzio RFX since 2002 as research engineer. His research interests are mainly in the field of power supply plants based on ac/dc and dc/dc converters and on power supply for neutral beam injection for fusion experiments. He is also interested in power quality problems.

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Pietro Zito was born in Palermo on 12/02/1973, he received a full marks and honors B. S. degree in electrical engineering in 1999 and a Ph. D. degree in Transport Engineering in 2004 at the University of Palermo. He was a research fellow from 2004 to 2010 and associate researcher from 2010 to 2012 at the Department of Transport Engineering. He was teacher of many undergraduate and master courses from 2004 to 2012 at the University of Palermo. Since 2012 he is currently a senior researcher at the ENEA R.C. of Frascati (Rome). The research activity is mainly focused on electric energy conversion, power electronics, control technique of electric vehicle, electrical drives, Intelligent Transport Systems. He is ENEA responsible for the procurement of super conducting magnet power supply systems of the tokamak JT60-SA. He is component of the design group for DTT - Divertor Tokamak Test facility, in particular for the design of electric power supplies and power grid facility. He is the author of many publications and reviewer of international scientific journals in his scientific sector of interest.

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