

Consorzio RFX publications list 2024

Journals

- R.1 X-Ray Micro-Discharges Fine Dynamics in a Vacuum High Voltage Experiment**
Spagnolo, S., Cordaro, L., Pilan, N., ... Tardocchi, M., Zuin, M.
IEEE Trans Plasma Sci , **52**, 4514 – 4519, 2024
- R.2 Error Field Control at JET**
Piron, L., Paz-Soldan, C., Lennholm, M., ... Joffrin, E., Martin, P.
10th 2024 Int. Conf. on Control, Decision and Information Technologies, CoDIT 2024, pp. 757–761 Conference Paper
- R.3 Observation of magnetic islands in tokamak plasmas during the suppression of edge-localized modes**
Willensdorfer, M., Mitterauer, V., Hoelzl, M., ... Alessi, E., Aguiam, D.
Nat. Phys. **20**, 1980–1988 (2024). <https://doi.org/10.1038/s41567-024-02666-y>
- R.4 Structural Assessment of the DTT Cryostat Design**
Barone, G., Belardi, V., Palma, M.D., ... Polli, G.M., Vivio, F.
IEEE Trans Plasma Sci , **52**, 4120 - 4125, 2024
- R.5 Optical emission spectroscopy and microwave reflectometry for magnetised plasmas: Applications to ion sources and fusion machines**
Emma, G., Agnello, R., Bezmalinovich, M., ... Torrisi, G., Mascali, D.
Nuovo Cimento della Societa Italiana di Fisica C, 2024, **47**(5), 320 Conference Paper
- R.6 Modelling of early-stage kilonova ejecta opacity reproducible in laboratory plasmas**
Bezmalinovich, M., Emma, G., Mishra, B., Pidatella, A., Mascali, D.
Nuovo Cimento della Societa Italiana di Fisica C, 2024, **47**(5), 300 Conference Paper
- R.7 A Backup Hybrid DC Circuit Breaker Design and Fast Discharge Units for DEMO Superconducting Magnets**
Zhang, H., Alberto, F., Franke, T., ... Wang, Y., Chen, Z.
2024 IEEE 10th International Power Electronics and Motion Control Conference, IPEMC 2024 ECCE Asia, 2024, pp. 2434–2439 [doi: 10.1109/IPEMC-ECCEAsia60879.2024.10567785](https://doi.org/10.1109/IPEMC-ECCEAsia60879.2024.10567785)
- R.8 What do electromagnetic sensors measure in soil surveys?**
Herrero, J., López-Bruna, D., Predebon, I.
Advances in Agronomy, 2024, **187**, 1–19 Book Chapter
- R.9 Runaway electron mitigation by 3D fields application in ASDEX Upgrade, COMPASS, and RFX-mod**
Gobbin, M., Valisa, M., Marrelli, L., ... Liu, Y., Li, L.
Frontiers in Physics, 2024, **12**, 1295082 Review • Open access
- R.10 Data Analysis and Tomographic Reconstruction via X-Ray Measurements With a GEM Detector at the High-Voltage Padova Test Facility**
Guiotto, F., Caruggi, F., Celora, A., ... Bettini, P., Muraro, A.
IEEE Trans Plasma Sci, **52**, 4450 – 4461, 2024

- R.11 Armor Thickness Assessment for the Divertor Tokamak Test Facility (DTT) Divertor Targets**
Roccella, S., Giorgetti, F., Luca, R.D., Innocente P., ... Hunger, K., Neu, R.
IEEE Trans Plasma Sci, **52**, 4167 – 4173, 2024
- R.12 Modelling of plasma discharge in a filament negative ion source**
Candeloro, V., Sartori, E., Kasaki, M., ... Tobari, H., Serianni, G.
Journal of Physics: Conference Series, 2024, **2743**(1), 012035 Conference Paper
- R.13 Optimizing the ITER NBI ion source by dedicated RF driver test stand**
Mario, I., Pimazzoni, A., Sartori, E., ... Zuin, E., Serianni, G.
Journal of Physics: Conference Series, 2024, **2743**(1), 012041 Conference Paper • Open access
- R.14 Beam divergence of RF negative hydrogen ion sources for fusion**
Wimmer, C., Barnes, M., Den Harder, N., ... Serianni, G., Veltri, P.
Journal of Physics: Conference Series, 2024, **2743**(1), 012033 Conference Paper • Open access
- R.15 From Design to Procurement of Tokamak Mechanical Structures**
Zoppoli, A., Dalla Palma, M., Di Gironimo, G.
Lecture Notes in Mechanical Engineering, 2024, pp. 257–270 Conference Paper
- R.16 Numerical Simulations of the Plasma Parameters in the SPIDER Device**
Zagorski, R., Lopez-Bruna, D., Koziol, K., ... Syntfeld-Kazuch, A., Serianni, G.
IEEE Trans Plasma Sci, **52**, 4480 – 4490, 2024
- R.17 The Switch-On Mechanism of the Current Emission**
Emanuele Spada, Silvia Deambrosis, Antonio De Lorenzi, Luca Lotto, Nicola Pilan ,
Silvia Spagnolo , and Matteo Zuin
IEEE Trans Plasma Sci, **52**, 4491-4497, 2024
- R.18 Structural Design of an Electrostatic Shield at –600 kV for the MITICA Beam Source**
S. Denizeau;D. Aprile;G. Berton;G. Chitarin;D. Marcuzzi;T. Patton;A. Rizzolo;M. Tollin;M. Valente
IEEE Trans Plasma Sci, **52**, 3725 - 3730, 2024
- R.19 Innovative Concepts in the DTT Neutral Beam Injector**
P. Agostinetti, E. Benedetti, R. Bonifetto, Member, IEEE, M. Bonesso, G. Calabrò, M. Cavenago, F. Crisanti, S. Dal Bello, M. Dalla Palma, D. D'Ambrosio, R. Dima, G. Favero, A. Ferro, M. Fincato, L. Grando, G. Granucci, R. Lombroni, R. Marsilio, A. Murari, T. Patton, A. Pepato, F. Raffaelli, P. Rebesan, M. Recchia, M. Ripani, A. Romano, E. Sartori, M. Scarpari, V. Variale, G. Ventura, F. Veronese, R. Zanino, A. Zappatore, and G. Zavarise
IEEE Trans Plasma Sci, **52**, 3802 - 3808, 2024
- R.20 MEST Multicoil System Control and Application Study to a PILOT FFHR With an RFP Fusion Core**
Lunardon, F., Maistrello, A., Gaio, E., Piovan, R.
IEEE Trans Plasma Sci, **52**, 4209 - 4216, 2024

- R.21 Development of X-Ray Collimators to Identify Sources of Radiation in Devices Insulated by Large Vacuum Gaps**
Pilan, N., Agostini, M., Fincato, M., ... Spagnolo, S., Lorenzi, A.D.
IEEE Trans Plasma Sci, **52**, 4371 – 4377, 2024
- R.22 Status of Design of the First Wall Supports of the Divertor Tokamak Test Facility**
Palumbo, M.F., Palma, M.D., Luca, R.D., ... Roccella, S., Neu, R.
IEEE Trans Plasma Sci, **52**, 3992 - 3997, 2024
- R.23 Conceptual Design of the DTT ECRH High Voltage Power Supply System**
Recchia, M., Nardi, M.D., Gaio, E., ... Rispoli, N., Romano, A.
IEEE Trans Plasma Sci, **52**, 4069 - 4074, 2024
- R.24 Overview on the Applicability of the ITER/NPP-Like Technologies to the DEMO Plant Electrical System and Promising Alternatives**
Ferro, A., Franke, T., Gaio, E., ... Barucca, L., Corato, V.
IEEE Trans Plasma Sci, **52**, 3970 - 3977, 2024
- R.25 Design Analysis of the DTT Wall Conditioning Systems**
Giulio Rubino;Gianluca Barone;Luca Boncagni;Roberto Cavazzana;Stefano Ciufo;Mauro Dalla Palma;Michele Fadone;Matteo Iafrati;Paolo Innocente;Matteo Zuin
IEEE Trans Plasma Sci, **52**, 4043 - 4049, 2024
- R.26 The Spherical and Lemon Hyperlens Grids Concept Applied to the DTT Neutral Beam Injector**
Veronese, F., Agostinetti, P., Dima, R., ... Pepato, A., Romanato, M.
IEEE Trans Plasma Sci, **52**, 3814 - 3819, 2024
- R.27 Study and development of diagnostic systems to characterise the extraction region in SPIDER**
Segalini, B., Candeloro, V., Poggi, C., ... Tollin, M., Sartori, E.
J. Instrum., 2024, **19** (1), C01013
- R.28 Subdiffusive transport of runaway electrons in presence of small amplitude MHD perturbations in COMPASS**
Casolari, A., Gobbin, M., Spizzo, G., ... Ficker, O., Macusova, E.
Nucl Fusion, 2024, **64** (1), 016027 Article • [Open access](#)
- R.29 3D numerical study of neutral gas dynamics in the DTT particle exhaust using the DSMC method**
Tantos, C., Varoutis, S., Hauer, V., Day, C., Innocente, P.
Nucl Fusion, 2024, **64** (1), 016019 Article • [Open access](#)
- R.30 Numerical investigation of toroidal plasma response for ELM control via magnetic perturbations in the DTT Tokamak**
Pigatto, L., Bolzonella, T., Bonotto, M., ... Villone, F., Vlad, G.
Nucl Fusion, 2024, **64** (1), 016023 Article • [Open access](#)
- R.31 Self-consistent multi-component simulation of plasma turbulence and neutrals in detached conditions**
Mancini, D., Ricci, P., Vianello, N., Van Parys, G., Oliveira, D.
Nucl Fusion, 2024, **1** (16012), 016012 Article • [Open access](#)

- R.32 Characterization of plasmas in negative ion sources using a Cs-H Collisional Radiative model**
Pouradier Duteil, B., Barbisan, M., Milazzo, R., ... Ugoletti, M., Zaniol, B.
J. Instrum. , 2024, **19** (2), C02051 Article • [Open access](#)
- R.33 Kinetic modeling of the plasma-wall interaction in the DTT divertor region**
Cichocki, F., Innocente, P., Sciortino, V., Minelli, P., Taccogna, F.
Plasma Phys and Cont Fus , 2024, **66** (2), 025015 Article • [Open access](#)
- R.34 Progress in the development of the ITER baseline scenario in TCV**
Labit, B., Sauter, O., Pütterich, T., ... Van Mulders, S., Voitsekhevitch, I.
Plasma Phys and Cont Fus , 2024, **66** (2), 025016 Article • [Open access](#)
- R.35 The effect of plasma shaping on high density H-mode SOL profiles and fluctuations in TCV**
Stagni, A., Vianello, N., Agostini, M., ... Reimerdes, H., Theiler, C.
Nucl Fusion , 2024, **64** (2), 026016 Article • [Open access](#)
- R.36 Experimentally corroborated model of pressure relaxation limit cycle oscillations in the vicinity of the transition to high confinement in tokamaks**
Grover, O., Manz, P., Yashin, A.Y., ... Hron, M., Panek, R.
Nucl Fusion , 2024, **64** (2), 026001 Article • [Open access](#)
- R.37 Energy distribution of fragments from H₂ and H₂⁺ dissociation by electron impact for the use in numerical models applied to negative ion sources**
Sartori, E.
J. Instrum. , 2024, **19** (3), C03026 Article • [Open access](#)
- R.38 A Versatile Board for Event-Driven Data Acquisition**
Manduchi, G., Rigoni, A., Trevisan, L., Patton, T.
Sensors , 2024, **24** (5), 1631 Article • [Open access](#)
- R.39 Balance of plant conceptual design of EU DEMO integrating different breeding blanket concepts**
Zaupa, M., Dalla Palma, M., Moscato, I., Barucca, L.
Fusion Eng Des , 2024, **200**, 114235 Article • [Open access](#)
- R.40 3D radiated power analysis of JET SPI discharges using the Emis3D forward modeling tool**
Stein-Lubrano, B., Sweeney, R., Bonfiglio, D., ... Shiraki, D., Silburn, S.
Nucl Fusion , 2024, **64** (3), 036020 Article • [Open access](#)
- R.41 Modelling of NBI shine-through in ITER non-nuclear phase to limit heat fluxes on first wall**
Vincenzi, P., Schneider, M., Snicker, A.
Fusion Eng Des , 2024, **200**, 114178 Article • [Open access](#)
- R.42 Global Alfvénic modes excitation in ohmic tokamak plasmas following magnetic reconnection events**
Kryzhanovskyy, A., Bonfiglio, D., Cappello, S., Veranda, M.
Nucl Fusion , 2024, **64** (3) 036004 Article • [Open access](#)
- R.43 Reconstruction of plasma equilibrium and separatrix using convolutional physics-informed neural operator**

Bonotto, M., Abate, D., Pigatto, L.
Fusion Eng Des , 2024, **200**, 114193 Article

R.44 Innovative dud detection based on JET DT experience

Piron, L., Aleiferis, S., Garzotti, L., ... Rimini, F., Valcarcel, D.F.
Fusion Eng Des , 2024, **200**, 114155 Article

R.45 Applicability of the ITER-like EC HVPS design to the DEMO ECS

Fasel, D., Dubray, J., Ferro, A., ... Siravo, U., Velasco, D.
Fusion Eng Des , 2024, **200**, 114150 Review

R.46 Performance of JT-60SA Thomson Scattering data analysis system

Akimitsu, M., Ohtani, Y., Funaba, H., ... Nakano, T., Yoshida, M.
J. Instrum. , 2024, **19** (4), C04011 Article

R.47 Improved accuracy and robustness of electron density profiles from JET's X-mode frequency-modulated continuous-wave reflectometers

Morales, R.B., Salmi, A., Abreu, P., ... Taylor, D., Terranova, D.
Rev. Sci. Instrum., 2024, **95** (4), 043501 Article • [Open access](#)

R.48 DEMO toroidal field coil fast discharge unit integration studies

Franke, T., Bajari, J.B., Čufar, A., ... Leichtle, D., Zito, P.
Fusion Eng Des , 2024, **201**, 114267 Article • [Open access](#)

R.49 Design and performance analysis of a High Field Side antenna for Plasma Position Reflectometry control on DTT

Santos, J.M., Silva, A., da Silva, F., ... Ricardo, E., Ribeiro, T.
Fusion Eng Des , 2024, **201**, 114275 Article • [Open access](#)

R.50 Characterization of a NEG cartridge under high pressure conditions

Paoletti, D., Belpane, A., Innocente, P., ... Calabrò, G., Vivio, F.
Fusion Eng Des , 2024, **201**, 114276 Article • [Open access](#)

R.51 First-principle based predictions of the effects of negative triangularity on DTT scenarios

Mariani, A., Balestri, A., Mantica, P., ... Sauter, O., Vlad, G.
Nucl Fusion, 2024, **64** (4), 046018 Article • [Open access](#)

R.52 Real-time disruption prediction in multi-dimensional spaces leveraging diagnostic information not available at execution time

Vega, J., Dormido-Canto, S., Castro, R., Fernández, J.D., Murari, A.
Nucl Fusion, 2024, **64** (4), 046010 Article • [Open access](#)

R.53 Technology challenges and integration of the plasma position reflectometer in RFX-mod2

De Masi, G., Cavazzana, R., Ruffini, F., ... Tiso, A., Peruzzo, S.
Fusion Eng Des , 2024, **201**, 114257 Article • [Open access](#)

R.54 Revisiting the Toda–Brumer–Duff criterion for order-chaos transition in dynamical systems

Sattin, F., Salasnich, L.
Physica D: Nonlinear Phenomena, 2024, **460**, 134067 Article • [Open access](#)

- R.55 Corrosion of 316L exposed to highly concentrated borated water used as shield in Nucl Fusion experimental reactors cooling circuits**
Gasparrini, C., Douglas, J.O., Yazdanpanah, A., ... Villari, R., Sonato, P.
Corrosion Science, 2024, **230**, 111902 Article • [Open access](#)
- R.56 Correlation of source parameters and beam properties in the early operation of the full size ITER negative ion beam source**
Ugoletti, M., Agostini, M., Poggi, C., ... Serianni, G., Zaniol, B.
Nucl Fusion, 2024, **64** (5), 056035 Article • [Open access](#)
- R.57 Computational Thermal-Fluid Dynamics analyses of borated water distribution in the Vacuum Vessel of the Divertor Tokamak Test facility**
Bonifetto, R., Barone, G., Dalla Palma, M., ... Zanino, R., Zappatore, A.
Fusion Eng Des , 2024, **202**, 114415 Article • [Open access](#)
- R.58 Damage assessment of the Faraday Shield in the RF driver of the negative ion source test stand SPIDER**
La Rosa, A., Berton, G., Denizeau, S., ... Montagner, F., Zin, V.
Fusion Eng Des , 2024, **202**, 114381 Article • [Open access](#)
- R.59 An overview of the evolution of the modeling of reflectometry diagnostics in fusion plasmas using finite-difference time-domain codes**
da Silva, F., Heurax, S., Ribeiro, T., De Masi g., Cavazzana R., Marchiori G., ... Luís, R., Nietiadi, Y.
Fusion Eng Des , 2024, **202**, 114354 Article • [Open access](#)
- R.60 Summary of caesium evaporation and deposition during SPIDER first campaign**
Fadone, M., Pouradier Duteil, B., Sartori, E., ... Barbisan, M., Serianni, G.
J. Instrum. , 2024, **19** (6), C06021 Conference Paper
- R.61 RFP-MSR Hybrid Reactor Model for Tritium Breeding and Actinides Transmutation**
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Murgo, S., Bustreo, C., Ciotti, M., ... Ripani, M., Panza, F.
Energies, 2024, **17** (12), 2934 Article • [Open access](#)
- R.62 Experiments and gyrokinetic simulations of TCV plasmas with negative triangularity in view of DTT operations**
Balestri, A., Mantica, P., Mariani, A., Bolzonella T., Innocente P., ... Vallar, M., Viezzer, E.
Plasma Phys and Cont Fus , 2024, **66** (6), 065031 Article • [Open access](#)
- R.63 On the perturbation of the interferometric phase in interferometry-polarimetry of fusion plasmas**
Giudicotti, L., Zilli, E., Fiorucci, D.
Plasma Phys and Cont Fus , 2024, **66** (6), 065029 Article
- R.64 Error field detection and correction studies towards ITER operation**
Piron, L., Paz-Soldan, C., Pigatto, L., ... Valcarcel, D., Vincent, C.
Nucl Fusion, 2024, **64** (6), 066029 Article • [Open access](#)
- R.65 Effects of seismic isolation on the dynamic behaviour of the DTT torus complex during earthquake events**
Fulici, M., Belardi, V.G., Dalla Palma, M., ... Vivio, F., Fanelli, P.
Fusion Eng Des , 2024, **203**, 114476 Article

- R.66 Modelling of power exhaust in TCV positive and negative triangularity L-mode plasmas**
Tonello, E., Mombelli, F., Février, O., ... Vianello, N., Passoni, M.
Plasma Phys and Cont Fus, 2024, **66** (6), 065006 Article • [Open access](#)
- R.67 Interpretative 3D MHD modelling of deuterium SPI into a JET H-mode plasma**
Kong, M., Nardon, E., Hoelzl, M., ... Sweeney, R., Szepesi, G.
Nucl Fusion, 2024, **64** (6), 066004 Article • [Open access](#)
- R.68 Comparison of detachment in Ohmic plasmas with positive and negative triangularity**
Février, O., Tsui, C.K., Durr-Legoupil-Nicoud, G., ... Bolzonella, T., Sciortino, F.
Plasma Phys and Cont Fus, 2024, **66** (6), 065005 Article • [Open access](#)
- R.69 Causality Detection and Quantification by Ensembles of Time Delay Neural Networks for Application to Nucl Fusion Reactors**
Gelfusa, M., Rossi, R., Murari, A.
J. Fusion Energy, 2024, **43** (1), 7 Article • [Open access](#)
- R.70 Role of Electron Stimulated Desorption in the initiation of HVDC vacuum arc**
Pilan, N., Agostini, M., Caruggi, F., ... Spagnolo, S., De Lorenzi, A.
Vacuum, 2024, **224**, 113109 Article
- R.71 Prediction of transport in the JET DTE2 discharges with TGLF and NEO models using the TGYRO transport code**
Shi, N., Staebler, G.M., Belli, E.A., ... Van Eester, D., Lomas, P.
Nucl Fusion, 2024, **64** (7), 076062 Article • [Open access](#)
- R.72 RFX-mod2 diagnostic capability enhancements for the exploration of multi-magnetic-configurations**
Carraro, L., Zuin, M., Abate, D., ... Vianello, N., Zaniol, B.
Nucl Fusion, 2024, **64** (7), 076032 Article • [Open access](#)
- R.73 Experiments and modelling of negative triangularity ASDEX Upgrade plasmas in view of DTT scenarios**
Aucone, L., Mantica, P., Happel, T., ... Bolzonella T., Sciortino, F., Tardini, G.
Plasma Phys and Cont Fus, 2024, **66** (7), 075013 Article • [Open access](#)
- R.74 RFX-mod2 as a flexible device for reversed-field-pinch and low-field tokamak research**
Terranova, D., Agostini, M., Auriemma, F., ... Zaniol, B., Zuin, M.
Nucl Fusion, 2024, **64** (7), 076003 Article • [Open access](#)
- R.75 The clock is ticking: Understanding the ‘mixed feelings’ about fusion energy in Europe**
Jones, C.R., Oltra, C., Giacometti, A., ... Orlando, M.T., Bustreo, C.
Energy Res. Soc. Sci, 2024, **113**, 103538 Article • [Open access](#)
- R.76 Development of fast 2.5 MeV neutron detectors for high-intensity stray magnetic field environments**
Molin, A.D., Guiotto, F., Putignano, O., ... Zuin, M., Tardocchi, M.
Rev. Sci. Instrum., 2024, **95** (8), 083544 Article
- R.77 Collection optics of JT-60SA edge Thomson scattering diagnostic**

D'Isa, F.A., Fassina, A., Giudicotti, L., ... Mazzarolo, E., Pasqualotto, R.
Rev. Sci. Instrum., 2024, **95** (8), 083541 Article

R.78 Role of radiation re-absorption in the thermal helium beam diagnostic

Ugoletti, M., Agostini, M., La Matina, M., ... Griener, M., Zuin, M.
Rev. Sci. Instrum., 2024, **95** (8), 083530 Article

R.79 Topology during magnetic reconnection events in RFX-mod

Porcu, P., Spizzo, G., Veranda, M., ... Gobbin, M., Terranova, D.
Phys. Plasmas, 2024, **31** (8), 082506 Article • [Open access](#)

R.80 Evaluation of Energy-Production Preferences Using ANP Methodology Based on a Comprehensive Residential Survey

Groma, V., Börcsök, E., Oltra, C., ... Terjék, A.T., Osán, J.
Energies, 2024, **17** (15), 3608 Article • [Open access](#)

R.81 Progress and challenges in the design of ITER's polarimetric Thomson scattering diagnostic system

Bagnato, F., Bassan, M., Sirinelli, A., ... Giudicotti, L., d'Isa, F.A.
Rev. Sci. Instrum., 2024, **95** (8), 083506 Article

R.82 An extensive analysis of SOL properties in high- δ plasmas in ASDEX Upgrade

Redl, A., Eich, T., Vianello, N., ... Tal, B., Dreval, M.
Nucl Fusion, 2024, **64** (8), 086064 Article • [Open access](#)

R.83 Investigations of atomic and molecular processes of NBI-heated discharges in the MAST Upgrade Super-X divertor with implications for reactors

Verhaegh, K., Harrison, J., Lipschultz, B., ... Vianello, N., Wischmeier, M.
Nucl Fusion, 2024, **64** (8), 086050 Article • [Open access](#)

R.84 Radiation asymmetry in JET disruption mitigation experiments with shattered pellet injection

Piron, L., Jachmich, S., Baylor, L., ... Terranova, D., Valcarcel, D.
Plasma Phys and Cont Fus, 2024, **66** (8), 085007 Article • [Open access](#)

R.85 Detection of alpha heating in JET-ILW DT plasmas by a study of the electron temperature response to ICRH modulation

Mantica, P., Auriemma, F., Casiraghi, I., ... Tardocchi, M., Van Eester, D.
Nucl Fusion, 2024, **64** (8), 086001 Article • [Open access](#)

R.86 Analysis of fusion alphas interaction with RF waves in D-T plasma at JET

Kirov, K.K., Auriemma, F., Bonofiglio, P.J., ... Stancar, Z., Van Eester, D.
Nucl Fusion, 2024, **64** (8), 086011 Article • [Open access](#)

R.87 Plasmoid drift and first wall heat deposition during ITER H-mode dual-SPIs in JOREK simulations

Hu, D., Artola, F.J., Nardon, E., ... Hoelzl, M., Huijsmans, G.T.A.
Nucl Fusion, 2024, **64** (8), 086005 Article • [Open access](#)

R.88 Corrosion phenomena and deposits in ITER Neutral Beam Test Facility primary cooling circuits

Cavallini, C., Zaupa, M., Bigi, M., ... Maniero, M., Sonato, P.
Fusion Eng Des, 2024, **205**, 114545 Article

R.89 Conceptual design of visible spectroscopy diagnostics for DTT

Belpane, A., Carraro, L., Fassina, A., Cavedon, M., Senni, L.
Plasma Phys and Cont Fus , 2024, **66** (8), 085002 Article

R.90 Investigation of intrinsic error fields in MAST-U device

Gambrioli, M., Piron, L., Cunningham, G., ... Ryan, D., Vincent, C.
Fusion Eng Des , 2024, **205**, 114544 Article

R.91 On the accuracy of a fast time resolution inversion method for the detection of different radiation patterns in fusion reactors

Wyss, I., Murari, A., Peluso, E., ... Gaudio, P., Rossi, R.
Fusion Eng Des , 2024, **205**, 114527 Article • *Open access*

R.92 Influence of heat treatments on low-power-LPBFed CuCrZr for Nucl Fusion applications

Candela, V., Zanini, L., Tocci, M., ... Pepato, A., Sonato, P.
J. Nucl. Mater, 2024, **597**, 155135 Article

R.93 TECXY simulations of the power exhaust in the multi-impurity plasma of DTT reactor

Grzybicka, N., Chmielewski, P., Innocente, P.
Phys. Plasmas, 2024, **31** (9), 093904 Article

R.94 A Mixed Approach for Clock Synchronization in Distributed Data Acquisition Systems

Manduchi, G., Rigoni, A., Trevisan, L., Patton, T.
Sensors, 2024, **24** (18), 6155 Article • *Open access*

R.95 Hamiltonian Model for Electron Heating by Electromagnetic Waves during Magnetic Reconnection with a Strong Guide Field

Sattin, F.
Symmetry, 2024, **16** (9), 1095 Article • *Open access*

R.96 Parsimonious statistical techniques for the detection of drifts toward dangerous operational conditions in tokamaks

Craciunescu, T., Murari, A.
Plasma Phys and Cont Fus , 2024, **66** (9), 095008 Article

R.97 Helium plasma operations on ASDEX Upgrade and JET in support of the non-nuclear phases of ITER

Hakola, A., Balden, M., Baruzzo, M., ... Widdowson, A., Wischmeier, M.
Nucl Fusion, 2024, **64** (9), 096022 Article • *Open access*

R.98 Exploring the physics of a high-performance H-mode scenario with small ELMs at low collisionality in JET with Be/W wall

de la Luna, E., Garcia, J., Sertoli, M., ... Sozzi, C., Vecsei, M., Auriemma F.
Nucl Fusion, 2024, **64**(9), 096014 Article • *Open access*

R.99 Design and test of a module of a breathable Electrostatic Shield for the MITICA 1 MV negative ion Beam Source

Chitarin, G., Patton, T., Pilan, N., Sartori, E.
J. Instrum. , 2024, **19** (10), C10001 Article • *Open access*

R.100 The multi-faced nature of the quasicohherent mode in EDA H-mode

Grenfell, G., Gil, L., Manz, P., ... Vanovac, B., Wolfrum, E.

R.101 Nonlinear MHD modeling of neon doped shattered pellet injection with JOEREK and its comparison to experiments in KSTAR

Lee, S.-J., Hu, D., Lehnen, M., ... Hoelzl, M., Na, Y.-S.
Nucl Fusion, 2024, **64** (10), 106042 Article

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- R.133 Pure niobium manufactured by Laser-Based Powder Bed Fusion: influence of process parameters and supports on as-built surface quality**
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- P.75 Mechanical Design of the new Bolometric and Soft-X ray diagnostics for DTT**
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- P.76 Numerical studies and design of the HFS DTT Plasma Position Reflectometer**
Ruffini Federico, G. De Masi, R. Cavazzana, R. Agnello, G. Emma, G. Marchiori, D. Mascali, E. Naselli, J. Santos, F. da Silva, A. Silva, O. Tudisco, G. Torrisi

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- P.77 Plasma control experiments in JET Deuterium-Tritium plasmas**

M. Baruzzo, S. Aleiferis, P. Almond, T. Bosman, L. Ceelen, P. Fox, HJ Sun, K. Kirov, M. Lennholm, A. Mele, J. Mitchell, L. Piron, O. Sauter, B. Sieglin, M. Van Berkel, D. Valcarcel, C. Vincent

- P.78 The EUROfusion Tokamak Exploitation program in support of ITER and DEMO**
N. Vianello, M. Wischmeier, M. Baruzzo, A. Hakola, D. Keeling, B. Labit, E. Tsitrone on behalf of the EUROfusion Tokamak Exploitation Team
- P.79 Electron temperature barriers as Lagrangian Coherent Structures in RFX-mod and in 3D nonlinear MHD**
M. Veranda, Daniele Bonfiglio, Susanna Cappello, David Terranova, Giovanni Di Giannatale, Paolo Franz, Marco Gobbin, Barbara Momo and RFX-mod team
- P.80 Modelling of the current density profiles in the high β JET plasmas guided by MHD markers and kinetic data**
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- P.81 Description of magnetic field lines without arcana**
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- P.82 High power beam operation with full segment in SPIDER, the prototype negative on source of the Neutral Beam Injector for ITER**
G. Serianni, D. Marcuzzi, S. Dal Bello, R. Casagrande, I. Mario, A. Pimazzoni, E. Sartori, A. Shepherd and the NBTF Team
- P.83 Overview of activities at the ITER Neutral Beam Test Facility (NBTF) in view of the ITER NBI**
D. Marcuzzi, P. Veltri, U. Fantz, M. Kashiwagi, M. Singh, and the contributing Staff of NBTF Team, IO, IPP, QST, IPR, and other entities
- P.84 The 1mv MITICA power supply beyond the modern technological limits: status and overview of high voltage tests in vacuum**
M. Boldrin on behalf of NBTF Team, IO-NBI Team, QST-NBI Team
- P.85 Analysis of the optical emission spectroscopy results during the 2024 campaign of the SPIDER facility**
Isabella Mario, B. Zaniol, D. Bruno, M. Tesser, G. Serianni, R. Pasqualotto
- P.86 Power Transfer Efficiency of SPIDER drivers against source parameters: investigation through calorimetry, comparison with simulations**
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- P.87 Assessment of the optimal plasma parameters in SPIDER for efficient negative ion production**
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P.88 A soft-link TIMES Italia-Plexos approach to develop Italian transition pathway scenarios

Agostini Marco, Umberto Giuliani, Chiara Bustreo, Francesco Gracceva, Giuseppe Zollino, Francesco Gracceva, Giuseppe Zollino