

Personal information

Name	Nicola Vianello
Date and Place of birth	14 August 1975, Venice, Italy
Citizenship	Italian
Address	Via dei Giacinti 28, 35126 Padova, Italy
Work Address	ISTP-CNR and Consorzio RFX C.so Stati Uniti 4, 35127 Padova, Italy
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ResearcherID	B-6323-2008
Google Scholar	Google scholar
Publons	Publons profile

Employment

1999	<i>Consorzio RFX, Padova, Italy, Research Fellow</i>
2002-2003	<i>Consorzio RFX, Padova, Italy, Research Fellow</i>
2003-2009	<i>Consorzio RFX, Padova, Italy, Research Scientist</i>
2009-2015	<i>Institute of Ionized Gas, National Research Council (CNR), Research permanent staff (Ricercatore III Livello)</i>
2015-2016	<i>Swiss Plasma Center, Ecole Polytechnique Federale de Lausanne, Collaborator Scientifique, (unpaid leave from the National Research Council)</i>
2016-2022	<i>Institute of Plasma Science and Technology, National Research Council (CNR) and Consorzio RFX, Research permanent staff (Ricercatore III Livello)</i>
2023-date	<i>Institute of Plasma Science and Technology, National Research Council (CNR) and Consorzio RFX, Senior Researcher (Ricercatore I Livello)</i>

Education

1993	High School Leaving Certificate , Liceo Scientifico Statale <i>U.Morin</i> , Venice Italy. Grade: 56/60
1999	M. Sci. Physics , <i>Università degli Studi di Padova</i> . Grade: 110/110 cum Laude
Thesis Title	<i>Trasporto di particelle ed energia per effetto di turbolenza elettrostatica in plasmi confinati in configurazione Reversed Field Pinch (Particle and energy transport induced by electrostatic turbulence in Reversed Field Pinch plasmas)</i>
advisor	Prof. S. Lo Russo, Dr. V. Antoni
2002	PhD in Energetics , <i>Università degli Studi di Padova</i>
Thesis Title	<i>Self-organization phenomena and coherent structure generation</i>
advisor	Prof. A.Buffa, Dr. V. Antoni

Duties and Responsibilities

- 2007-2015 Responsible Scientist for edge manipulators in RFX-mod device. Responsibilities implies the maintenance and improvement of the two manipulators used in RFX-mod for the insertion of edge probes and the development of new probe heads with the coordination between design, mechanical and diagnostic technicians.
- 2009 Task force leader in RFX-mod experiment for task force *Particle, Momentum and energy transport*. The task force was in charge to implement experimental proposals aimed to the comprehension of physical mechanisms which regulate particle momentum and energy transport in RFX-mod. The task force leaders together with the Scientific Coordinators take part to the decision processes concerning the experimental program of the machine, deciding priorities and objectives
- 2010 Task force leader in RFX-mod experiment for task force *Physics integration for high performance RFP*. The task force aimed to coordinate all the efforts devoted to the comprehension of the physical mechanism behind the appearance of improved confinement regimes in RFX-mod, to establish the physical requirement for a controlled achievement of h-mode confinement regime and to explore all the still open basic physics issues whose knowledge could help to improve plasma performances. As in the previous year the task force leaders take part to the scientific program schedule, coordinating in particular the activities for the high current performance operations.
- 2011 Coordinator of the EFDA working group *3D field effects in edge and SOL and diagnostic development* under EFDA Transport Topical Group. This working group has been established to coordinate the effort promoted by different EFDA associations on the following subject:
1. Investigation on the effect of non-axisymmetric fields on the filamentary structures (L and H-mode regimes)
 2. Investigation into changes in edge transport due to the application of 3D fields
 3. Characterization of the edge turbulence in these 3D situations (including effect of ion temperature and 3D fast particle losses)
 4. Edge turbulence and transport modelling by incorporating 3D field effects into the codes.
 5. Comparison studies between tokamaks, stellarators and RFPs on the above topics.
- The coordinators promote exchange of results between different association and the definition of common objectives which facilitate the comparison between different devices.
- 2012 Member of the Program committee of the 17th Joint EU-US Transport Task Force Meeting in combination with the 4th EFDA Transport Topical Group meeting, 3-6 September 2012, Padova, Italy
- 2013 Scientific Coordinator of experiment *B13-19 Investigation of M-Mode* on JET Tokamak campaigns C31-C34. Coordination implies assigning activities to the experimental team, plan the possible experimental campaign to be designed in collaboration with Session leaders, establish scientific objectives and monitoring scientific activities. The scientific results have been published in [A52, A29]
- 2014 Scientific Coordinator of experiment *AUG14-2.2-3, SOL filamentary transport at high density*, under the MST1 Eurofusion Work-Packages. Coordination implied the development of the experimental strategy, the assignment and monitoring of the activities of the international experimental team, the design of execution of the detailed experimental plan in collaboration with Session leaders and diagnosticians, the establishment of the scientific objectives and their proper dissemination in appropriate publications in scientific journals and conferences. A gross estimate of 220 k€, including machine time and human resources can be estimated. The scientific results contributed to the following publications [A43, A62, A44]
- 2015-2016 Responsible Scientist Soft X ray diagnostic in the TCV tokamak. Deputy Responsible Scientist for the Neutral Beam Heating system in the TCV tokamak.

- 2015-2016 Scientific Coordinator of experiment *TCV15-2.2-3: Filamentary Transport in the SOL* under MST1 Eurofusion Work-Package. Coordination implied the development of the experimental strategy, the assignment and monitoring of the activities of the international experimental team, the design of execution of the detailed experimental plan in collaboration with Session leaders and diagnosticians, the establishment of the scientific objectives and their proper dissemination in appropriate publications in scientific journals and conferences. A gross estimate of 135 k€, including machine time and human resources can be estimated. The scientific results contributed to the following publications [A58]
- 2015-2016 Scientific Coordinator of experiment *TCV15-1.5-1, Mitigation of high Z impurity accumulation through combined central ECRH and tailoring of MHD activity in high performance H-modes* under MST1 Eurofusion Work-Package. Coordination implied the development of the experimental strategy, the assignment and monitoring of the activities of the international experimental team, the design of execution of the detailed experimental plan in collaboration with Session leaders and diagnosticians, the establishment of the scientific objectives and their proper dissemination in appropriate publications in scientific journals and conferences. A gross estimate of 93 k€, including machine time and human resources can be estimated.
- 2017-2018 Scientific Coordinator of Topic 21 *Filamentary transport in high-power H-mode conditions and in no/small-ELM regimes to predict heat and particle loads on PFCs for future devices* under MST1 Eurofusion Work-Package. Coordination implied the development of the experimental strategy across three European Tokamak Devices (Asdex-Upgrade (Germany), TCV (Switzerland), MAST-U (UK)) , the assignment and monitoring of the activities of the international experimental team, the design of execution of the detailed experimental plan in collaboration with Session leaders and diagnosticians, the establishment of the scientific objectives and their proper dissemination in appropriate publications in scientific journals and conferences. A gross estimate of 840 k€, including machine time and human resources can be estimated. The scientific results contributed to the following publications [A31, A30]
- 2018-2019 Scientific Coordinator of JET Task T18-02 *Scrape-off layer and SOL - pedestal interaction* under JET1 Eurofusion Work-Package. Coordination implies assigning activities to the international experimental team, plan data analysis campaign and interface with Scientific Coordinators of different experiments. The overall human resources coordinate can be estimated in 374 ppds (person per day) in 2018 and 503 ppds in 2019. The scientific results contributed among the others to the following publications [A26, A22]
- 2019-2020 Scientific Coordinator of JET Experiment M18-41 *Divertor geometry effect on detachment and SOL* under JET1 Eurofusion Work-Package. Coordination implied the development of the experimental strategy, the assignment and monitoring of the activities of the international experimental team, the design of execution of the detailed experimental plan in collaboration with Session leaders and diagnosticians, the establishment of the scientific objectives and their proper dissemination in appropriate publications in scientific journals and conferences. A gross estimate of 600 ppds (person per day) have been coordinated for a total of 8 experimental sessions on JET including exploitation during the Tritium campaign. The scientific results contributed to the following publications [A11, A18]
- 2019-2020 Scientific Coordinator of Topic 16 *Effect of filamentary transport on heat and particle loads* under MST1 Eurofusion Work-Package. experimental strategy across different European Tokamak Devices (Asdex-Upgrade (Germany), TCV (Switzerland)) , the assignment and monitoring of the activities of the international experimental team, the design of execution of the detailed experimental plan in collaboration with Session leaders and diagnosticians, the establishment of the scientific objectives and their proper dissemination in appropriate publications in scientific journals and conferences. A gross estimate of 800 k€, including machine time and human resources can be estimated. The scientific results contributed to the following publications [A19, A20]
- 2020-Date Elected European Member of the ITPA Pedestal & Edge Physics Topical Group

2020-Date	Responsible of ITPA Div-SOL task D34 to coordinate activity on <i>Far Scrape Off Layer transport</i> in a world-wide coordinated effort
2020-Date	Member of the EUROfusion HPC (High Performance Computing) Allocation Committee.
2020-Date	Deputy Task Force Leader of Work Package <i>Tokamak Exploitation (WPTE)</i> of the EUROfusion Consortium. The work package WPTE, is the larger Work Package within the Fusion Science Department of the EUROfusion Consortium, and has been established to coordinate the European experimental fusion program in support of the ITER project and the design activity of the DEMO program. The activity of the Work Package is distributed across 5 different european tokamak devices, ASDEX-Upgrade (Germany), TCV (Switzerland), MAST-U (UK), WEST (France) and JET (UK). Among the duties of the Task Force Leaders are the definition of the high-level scientific deliverables, the implementation of the program subdivided into different Research Topics, the attribution of appropriate experimental time as well as human resources for the achievement of scientific results by proper managing the available budget the monitoring of the achievements and dissemination of the scientific results.
2022-Date	Member of the Expert Group on <i>SOL and Divertor Physics</i> for the definition of the DTT Experiment Research Plan

Competition and Habilitation

May 2009	Public selection (Ref.364/12) held by Consiglio Nazionale delle Ricerche, for research position
Evaluation panel	Prof. A. Fasoli, Ecole Polytechnique Federale de Lausanne, Switzerland Dr. V. Antoni, Consiglio Nazionale delle Ricerche, Istituto Gas Ionizzati, Padova Dr. D. Farina, Consiglio Nazionale delle Ricerche, Istituto di Fisica del Plasma, Milano
Result	The competition included written exams and oral colloquium. The candidate resulted the winner of the competition with a final mark of 104.5/120
2012	Abilitazione Scientifica Nazionale, Bando D.D. 222/2012, (ASN National Scientific Habilitation). Public evaluation of the competences and scientific achievements to obtain the qualification of <i>Professore Associato</i> (Associate Professor) in Experimental Physics and Material Science
Evaluation Panel	Prof. Mattera Lorenzo, Università degli Studi di Genova, Italy Prof. Rinaldo Cubeddu, Politecnico di Milano, Italy Prof. Stefano Nannarone, Università degli Studi di Modena e Reggio Emilia, Italy Prof. Mobilio Settimio, Università degli Studi di Roma Tre, Italy Prof. Andrea Cavalleri, Max Planck Institute for the Structure and Dynamics of Matter, Hamburg
Grade	Excellent Valid from 11/12/2013 to 11/12/2019
2018	Abilitazione Scientifica Nazionale, Bando D.D. 1532/2016, (ASN National Scientific Habilitation). Public evaluation of the competences and scientific achievements to obtain the qualification of <i>Professore Ordinario</i> (Full Professor) in Experimental Physics and Material Science
Evaluation Panel	Prof. Federico Boscherini, Università degli Studi di Bologna Prof. Giulio Nicola Cerullo, Politecnico di Milano Prof.ssa Pasqualino Maria Maddalena, Università degli Studi di Napoli Prof. Francesco Saverio Pavone, Università degli Studi di Firenze Prof. Sandro Santucci, Università degli Studi dell'Aquila Valid from 26/07/2018 to 26/07/2029
2018	Abilitazione Scientifica Nazionale, Bando D.D. 1532/2016, (ASN National Scientific Habilitation). Public evaluation of the competences and scientific achievements to obtain the qualification of <i>Professore Associato</i> (Associate Professor) in Experimental Physics and Material Science
Evaluation Panel	Prof. Federico Boscherini, Università degli Studi di Bologna Prof. Giulio Nicola Cerullo, Politecnico di Milano

Prof. Pasqualino Maria Maddalena, Università degli Studi di Napoli
 Prof. Francesco Saverio Pavone, Università degli Studi di Firenze
 Prof. Sandro Santucci, Università degli Studi dell'Aquila
 Valid from 26/07/2018 to 26/07/2029

2018	Abilitazione Scientifica Nazionale, Bando D.D. 1532/2016 (ASN National Scientific Habilitation). Public evaluation of the competences and scientific achievements to obtain the qualification of <i>Professore Associato</i> (Associate Professor) in Theoretical Physics of Matter
Evaluation Panel	Prof. Federico Boscherini, Università degli Studi di Bologna Prof.ssa Vincenza Cupri, Università degli Studi di Messina Prof. Amos Maritan, Università degli Studi di Padova Prof. Alessandro Tredicucci, Università degli Studi di Pisa Prof. Pierluigi Veltri, Università della Calabria Abilitazione valida dal 08/08/2018 al 08/08/2029
2020	Consiglio Nazionale delle Ricerche (National Research Council) Procedure N. 315.15 PR for the promotion to the level of <i>Senior Researcher</i> (Ricercatore I Livello)
Evaluation Panel	Prof. Stefano Zapperi, Università degli Studi di Milano Dott. Michael Pusch, Istituto di biofisica (IBF)-CNR, Genova Dott.ssa Paola Mantica, Istituto per la scienza e tecnologia dei plasmi (ISTP)-CNR, Milano The candidate has been evaluated as eligible and promoted to the level of Senior Researcher from 01/01/2023

International Experience

March – June 2001	Visiting scientist at Royal Institute of Technology, Stockholm, Sweden
May – June 2002	Visiting scientist, under EURATOM-Mobility Staff Movement, at Royal Institute of Technology, Stockholm, Sweden
March – April 2003	Visiting scientist, under EURATOM-Mobility Staff Movement, at Royal Institute of Technology, Stockholm, Sweden
April – June 2004	Visiting scientist, under EURATOM-Mobility Staff Movement, at Royal Institute of Technology, Stockholm, Sweden
October 2005	Visiting scientist, under EURATOM-Mobility Staff Movement, at Risø National Laboratory, Denmark
February 2008	Visiting Scientist, under EURATOM-Mobility Staff Movement, at Max-Planck Institut für Plasmaphysik, Garching, Germany
May 2009	Visiting Scientist, under EURATOM-Mobility Staff Movement, at Max-Planck Institut für Plasmaphysik, Garching, Germany
November 2009	Visiting Scientist, under EURATOM-Mobility Staff Movement, at Centre der Recherches en Physique des Plasmas, EPFL, Lausanne
March 2011	Visiting scientist, under EURATOM-Mobility Staff Movement, at Royal Institute of Technology, Stockholm, Sweden
April 2011	Visiting scientist, under EURATOM-Mobility Staff Movement, at the National Fusion Laboratory, CIEMAT, Madrid
May 2011	Visiting Scientist, under EURATOM-Mobility Staff Movement, at Max-Planck Institut für Plasmaphysik, Garching, Germany
February-March 2012	Visiting Scientist, under EURATOM-Mobility Staff Movement, at Culham Centre for Fusion Energy, Oxford, JET
July-September 2013	Visiting Scientist, under EURATOM-Mobility Staff Movement, at Culham Centre for Fusion Energy, Oxford, JET
May 2014	Visiting Scientist at Max-Planck Institut für Plasmaphysik, Garching, Germany
July 2014	Visiting Scientist at Culham Centre for Fusion Energy, Oxford, JET

July 2015	Visiting Scientist at Max-Planck Institut für Plasmaphysik, Garching, Germany
July 2015	Visiting Scientist at Max-Planck Institut für Plasmaphysik, Garching, Germany
October 2015	Visiting Scientist at Max-Planck Institut für Plasmaphysik, Garching, Germany
February 2016	Visiting Scientist at Max-Planck Institut für Plasmaphysik, Garching, Germany
May 2016	Visiting Scientist at Swiss Plasma Centre, EPFL, Lausanne
July 2016	Visiting Scientist at Swiss Plasma Centre, EPFL, Lausanne
April 2017	Visiting scientist (fellowship), within EUROfusion framework, at Max-Planck Institut für Plasmaphysik, Garching, Germany
May 2017	Visiting scientist (fellowship), within EUROfusion framework, at Max-Planck Institut für Plasmaphysik, Garching, Germany
June 2017	Visiting scientist (fellowship), within EUROfusion framework, at Swiss Plasma Centre, EPFL, Lausanne
September 2017	Visiting scientist (fellowship), within EUROfusion framework, at the Swiss Plasma Centre, EPFL, Lausanne
November 2017	Visiting scientist (fellowship), within EUROfusion framework, at the Swiss Plasma Centre, EPFL, Lausanne
July 2018	Visiting scientist (fellowship), within EUROfusion framework, at Culham Centre for Fusion Energy, Oxford, UK
2019-date	Several visits to different European Laboratories, mainly Swiss Plasma Center at EPFL, Culham Centre for Fusion Energy at Culham, UK and Max-Planck Institut für Plasmaphysik, Garching all within EUROfusion framework scheme

Invited Lectures

July 2012	Invited lecture at the <i>Workshop on Electric Field, Turbulence Self Organization in Magnetized Plasmas</i> , Stockholm, Sweden
Title	<i>The role of 3D fields on edge and SOL turbulence</i>
July 2014	Invited lecture at the <i>41st EPS Conference in Plasma Physics</i> , Berlin, Germany
Title	<i>Magnetic perturbation as a viable tool for edge turbulence modification</i>
December 2014	Invited lecture at the <i>1st International and Interdisciplinary Workshop on Fusion and Technological Plasmas (FUSTECH)</i> , Collaborative Research Center SFB-TR87, Ruhr-University Bochum
Title	<i>Fluctuations in tokamaks and RFPs: Relation with topology</i>
March 2024	Invited lecture at the <i>2024 US-EU Transport Task Force Workshop</i>
Title	<i>The EUROfusion Tokamak Exploitation program in support of ITER and DEMO</i>

Teaching

2008–2009	Assistant for the course <i>Fluid and Plasma Physics</i> , M.Sci degree in Physics, Department of Physics, University of Padova
2010	Assistant for the course <i>Fluid and Plasma Physics</i> , M.Sci degree in Physics, Department of Physics, University of Padova
2011–2012	Assistant to the course <i>Fundamental of Plasma Physics</i> , Bachelor degree in Physics, Department of Physics, University of Padova
2012–2013	Assistant to the course <i>Fundamental of Plasma Physics</i> , Bachelor degree in Physics, Department of Physics, University of Padova
2013–2014	Assistant to the course <i>Fundamental of Plasma Physics</i> , Bachelor degree in Physics, Department of Physics, University of Padova

- 2013-2014 Lecturer for basic Physics course of the Joint Research Doctorate and European Interuniversity Doctoral Network on Fusion Science and Engineering
- 2014-2015 Assistant to the course *Fundamental of Plasma Physics*, Department of Physics, University of Padova
- 2021 Lecturer for basic *Advanced Course on Plasma Physics and Diagnostic* per il PhD Programme in Fusion Science and Engineering, Università degli Studi di Padova ed Università degli studi di Napoli Federico II
- 2023 Lecturer for basic *Advanced Course on Plasma Physics and Diagnostic* per il PhD Programme in Fusion Science and Engineering, Università degli Studi di Padova ed Università degli studi di Napoli Federico II

Supervising

- 2007 Supervisor for Bachelor Thesis, Department of Physics, University of Padova, candidate: A. Scaggion
- 2009 Supervisor for M.Sci. Thesis, Department of Physics, University of Padova, candidate: A. Scaggion
- 2011 Supervisor for Bachelor Thesis, Department of Physics, University of Padova, candidate: A. Mazzi
- 2013 Supervisor for M.Sci. Thesis, Department of Physics, University of Padova, candidate: A. Mazzi
- 2015 Supervisor for PhD. Thesis, Department of Physics, University of Padova, candidate: C. Rea
- 2015 Supervisor for M.Sci. Thesis, Ecole Polytechnique Federale de Lausanne, candidate: M. Pedro
- 2020 Supervisor for M.Sci. Thesis, Department of Physics, University of Padova, candidate: S. Bresciani
- 2019-2022 Supervisor for PhD. Thesis in Engineering for Energy and Environment, Dipartimento di Ingegneria, Università della Tuscia, candidate: D. Mancini
- 2020-2023 Supervisor for PhD. Thesis in Engineering for Energy and Environment, Dipartimento di Ingegneria, Università della Tuscia, candidate: A. Redl
- 2020-2023 Supervisor for PhD. Thesis in Fusion Science and Engineering, Università degli Studi di Padova, candidate: A. Stagni
- 2022-2025 Supervisor for PhD. Thesis in Engineering for Energy and Environment, Dipartimento di Ingegneria, Università della Tuscia, candidate: Y. Nakeva

PhD Committee

- 2014 PhD Committee at the Department of Physics, Technical University of Denmark. Candidate: N. Yan
- 2015 PhD Committee at the Faculté de Sciences de Base, Ecole Polytechnique Federale de Lausanne. Candidate: F. Avino. Thesis N. 6734
- 2016 PhD Committee at the Faculté de Sciences de Base, Ecole Polytechnique Federale de Lausanne. Candidate: F. Nespoli. Thesis N. 7475
- 2017 PhD Committee at the Department of Physics, University of York. Candidate: A. Wynn
- 2018 PhD Committee presso la Faculté de Sciences de Base, Ecole Polytechnique Federale de Lausanne. Candidate: P. Paruta. Thesis N. 8944
- 2018 PhD Committee at the Department of Physics, Technical University of Denmark. Candidate: J. M. Bolsen
- 2020 PhD Committee at the Faculté de Sciences de Base, Ecole Polytechnique Federale de Lausanne. Candidate: C. Beadle. Thesis N. 8279

- 2021 PhD Rapporteur at the Aix-Marseille Université Candidate: R. Tatali
- 2022 PhD Rapporteur at the Aix-Marseille Université Candidate: M. Scotto d'Abusco

Evaluation panel

- 2013 Reviewer for grant *Futuro in Ricerca* 2013, Proposal N. RBFR13MXVQ
- 2013 Reviewer for grant *PRIN* 2012, Proposal N. 2012XAS7WZ
- 2020 Reviewer for application to the Department of Energy, Office of Fusion Energy Science, USA
- 2020 Reviewer for application to the Czech Academy of Science
- 2020 Reviewer for application to Sweden Research Council

Bibliography

Total number of Articles in peer reviewed journal: 161

First oral contributions: 22

Not included in the publication list approximately 100 conference proceedings.

h-index factor: 36 according to ISI Web of Knowledge (last update July 18, 2024) or 47 according to Google scholar (last update July 18, 2024), 42 secondo Scopus (al July 18, 2024)

Article in peer-review journal

- [A1] Carraro, L., Zuin, M., Abate, D., Agostinetti, P., Agostini, M., Aprile, D., Barbisan, M., Belpane, A., Berton, G., Bonotto, M., Brombin, M., Cavazzana, R., Cinnirella, L., Ciufo, S., Croci, G., Cordaro, L., D'Isa, F., Bello, S. D., Molin, A. D., Masi, G. D., Emma, G., Fadone, M., Fassina, A., Fiorucci, D., Franz, P., Grando, L., Guiotto, F., Matina, M. L., Marchiori, G., Marconato, N., Mario, I., Marrelli, L., Milazzo, R., Molisani, S., Moresco, M., Muraro, A., Cippo, E. P., Peruzzo, S., Porcu, P., Pomaro, N., Puiatti, M., Putignano, O., Rigamonti, D., Garola, A. R., Rizzolo, A., Ruffini, F., Scarin, P., Spagnolo, S., Spolaore, M., Taliercio, C., Tardocchi, M., Terranova, D., Ugoletti, M., Valisa, M., **Vianello, N.**, and Zaniol, B. (2024) "*RFX-mod2 diagnostic capability enhancements for the exploration of multi-magnetic-configurations*", *Nuclear Fusion* **64**, 076032.
- [A2] Grover, O., Manz, P., Yashin, A., Réfy, D., Seidl, J., **Vianello, N.**, Birkenmeier, G., Solano, E., Sos, M., Bohm, P., Bilkova, P., Hron, M., Panek, R., Team, t. A. U., Team, t. C., Team, t. G.-M., and Contributors, J. (2024) "*Experimentally corroborated model of pressure relaxation limit cycle oscillations in the vicinity of the transition to high confinement in tokamaks*", *Nuclear Fusion* **64**, 026001.
- [A3] Mancini, D., Ricci, P., **Vianello, N.**, Parys, G. V., and Oliveira, D. (2024) "*Self-consistent multi-component simulation of plasma turbulence and neutrals in detached conditions*", *Nuclear Fusion* **64**, 016012.
- [A4] Redl, A., Eich, T., **Vianello, N.**, Adamek, J., Bernert, M., Birkenmeier, G., Brida, D., David, P., Faitsch, M., Fischer, R., Grenfell, G., Ochoukov, R., Rohde, V., Tal, B., Dreval, M., Team, t. A. U., and Team, t. E. T. E. (2024) "*An extensive analysis of SOL properties in high- δ plasmas in ASDEX Upgrade*", *Nuclear Fusion* **64**, 086064.
- [A5] Stagni, A., **Vianello, N.**, Agostini, M., Colandrea, C., Gorno, S., Labit, B., Sheikh, U., Simons, L., Sun, G., Tsui, C., Ugoletti, M., Wang, Y., Wüthrich, C., Boedo, J., Reimerdes, H., Theiler, C., and Team, t. T. (2024) "*The effect of plasma shaping on high density H-mode SOL profiles and fluctuations in TCV*", *Nuclear Fusion* **64**, 026016.
- [A6] Terranova, D., Agostini, M., Auriemma, F., Gobbin, M., Marchiori, G., Pigatto, L., Porcu, P., Predebon, I., Spizzo, G., **Vianello, N.**, Zanca, P., Abate, D., Bolzonella, T., Bonfiglio, D., Bonotto, M., Cappello, S., Carraro, L., Cavazzana, R., Franz, P., Lorenzini, R., Marrelli, L., Milazzo, R., Peruzzo, S., Puiatti, M., Scarin, P., Spolaore, M., Tomasina, E., Valisa, M., Veranda, M., Zaniol, B., and Zuin, M. (2024) "*RFX-mod2 as a flexible device for reversed-field-pinch and low-field tokamak research*", *Nuclear Fusion* **64**, 076003.
- [A7] Tonello, E., Mombelli, F., Février, O., Alberti, G., Bolzonella, T., Durr-Legoupil-Nicoud, G., Gorno, S., Reimerdes, H., Theiler, C., **Vianello, N.**, Passoni, M., Team, t. T., and Team, t. W. (2024) "*Modelling of power exhaust in TCV positive and negative triangularity L-mode plasmas*", *Plasma Physics and Controlled Fusion* **66**, 065006.

- [A8] Birkenmeier, G., Solano, E. R., Carvalho, I. S., Hillesheim, J. C., Delabie, E., Lerche, E., Taylor, D., Gallart, D., Mantsinen, M. J., Silva, C., Angioni, C., Ryter, F., Carvalho, P., Fontana, M., Pawelec, E., Silburn, S. A., Sirén, P., Aleiferis, S., Bernardo, J., Boboc, A., Douai, D., Puglia, P., Jacquet, P., Litherland-Smith, E., Jepu, I., Kos, D., Sun, H. J., Shaw, A., King, D., Viola, B., Henriques, R., Kirov, K. K., Baruzzo, M., Garcia, J., Hakola, A., Huber, A., Joffrin, E., Keeling, D., Kappatou, A., Lennholm, M., Lomas, P., Luna, E. d. I., Maggi, C. F., Mailloux, J., Maslov, M., Rimini, F. G., **Vianello, N.**, Verdoolaege, G., Weisen, H., Wischmeier, M., and Contributors, J. (2023) “*The role of isotope mass and transport for H-mode access in tritium containing plasmas at JET with ITER-like wall*”, *Plasma Physics and Controlled Fusion* **65**, 054001.
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First author oral contribution

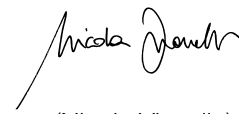
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Declaration

I hereby declare that the above information are true and correct to the best of my knowledge and belief and in the event of any information being found false or incorrect, my candidature will be liable to be canceled.

Padova, July 18, 2024



(Nicola Vianello)