

List of Publications

Francesco Volpe

4 invited talks

1 article recently submitted, as only author

31 refereed publications, 4 of which as first or only author

50 conference proceedings, 12 of which as first or only author

25 other publications (reports, lecture notes and others), 17 of which as first author

Invited talks

- I4) **Advanced Techniques for Neoclassical Tearing Mode Control in DIII-D**
invited to the 50th Annual Meeting of the Division of Plasma Physics of the American Physical Society (APS), Dallas, TX (USA), 17-21 November 2008
- I3) **ART: a Ray-Tracing Code for mode-converted Electron Bernstein Waves in Tokamaks and Stellarators**
invited to the meeting of the IMP5 Project (Fast Particles and Heating) of the EFDA Integrated Tokamak Modelling Task Force (ITM-TF), Cadarache (France), 10-11 January 2006
- I2) **BXO mode-converted electron Bernstein emission diagnostic of electron temperature profiles at W7-AS Stellarator**
invited to the 14th Topical Conference on High Temperature Plasma Diagnostics (HTPD 2002) Madison, Wisconsin (USA), 8-11 July 2002
- I1) **Electron Bernstein emission diagnostic of electron temperature profiles at W7-AS Stellarator**
invited to the International Conference on Advanced Diagnostics for Magnetic and Inertial Fusion Villa Monastero, Varenna (Italy), 3-7 September 2001

Other talks (contributed and seminars) are listed at <http://silver.neep.wisc.edu/~volpe/Publ/1Pres.pdf>.

Recently submitted

- 1) F. Volpe
Analytical Solution of the O-X Mode Conversion Problem
Phys. Lett. A
Preprint: <http://arxiv.org/abs/0907.3981>

First Author Journal Articles

- Jf4) F.A.G. Volpe, M.E. Austin, R.J. La Haye, J. Lohr, R. Prater, E.J. Strait and A.S. Welander
Advanced techniques for neoclassical tearing mode control in DIII-D
Phys. Plasmas **16**, in press (2009)
- Jf3) F. Volpe
Weakly relativistic dielectric tensor for arbitrary wavenumbers
Phys. Plasmas **14**, 122105 (2007)
1 citation

- Jf2) F. Volpe
Sensitivity of ITER ECRH Upper Launcher to Steering Errors and Changes of Profiles and Integration with Equatorial Launcher
Journal of Phys.: Conf. Series **25**, 283 (2005)
 5 citations
- Jf1) F. Volpe, H.P. Laqua and the W7-AS Team
BXO mode-converted electron Bernstein emission diagnostic (invited)
Rev. Sci. Instrum. **74**, 1409 (2003)
 15 citations

Co-authored Refereed Publications

- Jc27) N.K. Hicks, W. Suttrop, K. Behler, F. Volpe and 7 coauthors
Fast sampling upgrade and real time NTM control application of the ECE radiometer on Asdex Upgrade
Fusion Science & Technology, in press (2009)
- Jc26) H. Meyer, R.J. Akers, F. Alladio, F. Volpe and 106 coauthors
Overview of Physics Results from MAST
[hrefhttp://www.iop.org/EJ/abstract/0029-5515/49/10/104017](http://www.iop.org/EJ/abstract/0029-5515/49/10/104017) *Nucl. Fusion* **49**, 104017 (2009)
- Jc25) H. Zohm, J. Adamek, C. Angioni, F. Volpe and 179 coauthors
Overview of ASDEX Upgrade results
[hrefhttp://www.iop.org/EJ/abstract/0029-5515/49/10/104009](http://www.iop.org/EJ/abstract/0029-5515/49/10/104009) *Nucl. Fusion* **49**, 104009 (2009)
- Jc24) R. Bilato, F. Volpe, A. Köhn, R. Paccagnella, D. Farina, E. Poli, M. Brambilla
Feasibility of electron Bernstein wave coupling via O-X-B mode conversion in the RFX-mod reversed field pinch device
Nucl. Fusion **49**, 075020 (2009)
- Jc23) L. Giannone, W. Schneider, P.J. McCarthy, F. Volpe and 22 coauthors **Real time magnetic field and flux measurements for tokamak control using a multi-core PCI Express system**
Fus. Eng. Design **84**, 825 (2009)
- Jc22) B. Esposito, G. Granucci, S. Nowak, F. Volpe and 10 coauthors
Disruption Control on FTU and ASDEX Upgrade with ECRH
Nucl. Fusion **49**, 065014 (2009)
- Jc21) D.H. Wagner, J.K. Stober, F. Leuterer, F. Volpe and 24 coauthors
Progress and First Results with the New Multi-Frequency ECRH System for ASDEX Upgrade
IEEE Trans. Plasma Science **37**, 395 (2009)
- Jc20) J.P. Qian, L.L. Lao, Q.L. Ren, H. Rinderknecht, F. Volpe, C. Zhang and B.N. Wan
Equilibrium reconstruction of plasma profiles based on soft x-ray imaging in DIII-D
Nucl. Fusion **49**, 025003 (2009)
- Jc19) R. Prater, D. Farina, Yu. Gribov, R.W. Harvey, Y.R. Lin-Liu, E. Poli, A.K. Ram, A.P. Smirnov, F. Volpe, E. Westerhof, A. Zvonkov and ITPA Steady State Operations Topical Group
Benchmarking of codes for electron cyclotron heating and electron cyclotron current drive under ITER conditions
Nucl. Fusion **48**, 035006 (2008)
 2 citations

- Jc18) A.Pochelon, A.Mueck, L.Curchod, Y.Camenen, S.Coda, B.P.Duval, T.P.Goodman, I.Klimanov, H.P.Laqua, Y.Martin, J.-M.Moret, L.Porte, A.Sushkov, V.S.Udintsev, F.Volpe and the TCV Team
Electron Bernstein wave heating of over-dense H-mode plasmas in the TCV tokamak via O-X-B double mode conversion
Nucl. Fusion **47**, 1552 (2007)
 1 citation
- Jc17) B.Lloyd, R.J.Akers, F.Alladio, F.Volpe and 83 coauthors
Overview of physics results from MAST
Nucl. Fusion **47**, S658 (2007)
 1 citation
- Jc16) V.Shevchenko, G.Cunningham, A.Gurchenko, E.Gusakov, B.Lloyd, M.O'Brien, J.Preinhaelter, A.Saveliev, A.Surkov, F.Volpe, M.Walsh
Development of Electron Bernstein Wave Research in MAST
Fusion Science & Technology **52**, 202 (2007)
- Jc15) A.Mueck, Y.Camenen, S.Coda, L.Curchod, T.P.Goodman, H.P.Laqua, A.Pochelon, L.Porte, V.S.Udintsev, F.Volpe, TCV Team
Electron Bernstein Wave Heating and Emission in the TCV Tokamak
Fusion Science & Technology, **52**, 221 (2007)
- Jc14) A.Mueck, L.Curchod, Y.Camenen, S.Coda, T.P.Goodman, H.P.Laqua, A.Pochelon, L.Porte, F.Volpe, TCV Team
Demonstration of Electron-Bernstein-Wave Heating in a Tokamak via O-X-B Double-Mode Conversion
Phys. Rev. Lett. **98**, 175004 (2007)
 5 citations
- Jc13) U.Tartari, G.Grosso, G.Granucci, F.Gandini, S.Garavaglia, G.Grossetti, A.Simonetto, V.Mellera, V.Muzzini, L.Lubyako, A.Shalashov, F.P.Orsitto, G.Ciccione and F.Volpe
Evolution of the millimeter-wave collective Thomson scattering system of the high-field tokamak Frascati Tokamak Upgrade
Rev. Sci. Instrum. **78**, 043506 (2007)
- Jc12) U.Tartari, G.Grosso, G.Granucci, L.V.Lubyako, A.G.Shalashov, E.V.Suvorov, F.P.Orsitto, A.Simonetto, S.Nowak, F.Volpe, A.Bruschi, F.Gandini, V.Muzzini, S.Garavaglia and G.Grossetti
Critical issues highlighted by Collective Thomson Scattering below electron cyclotron resonance in FTU
Nucl. Fusion **46**, 928 (2006)
 6 citations
- 2001 - 2005**
- Jc11) G.F.Counsell, R.J.Akers, L.C.Appel, F.Volpe and 69 coauthors
Overview of MAST Results
Nucl. Fusion **45**, S157 (2005)
 7 citations
 Preprint also available as: Proc.20th IAEA Fusion Energy Conf., Vilamoura (Portugal), 1-6 Nov.2004, paper OV/2-4
- Jc10) W.A.Houlberg, C.Gormezano, J.F.Artaud, F.Volpe and 20 coauthors
Integrated Modeling of the Current Profile in Steady-State and Hybrid ITER Scenarios
Nucl. Fusion **45**, 1309 (2005)
 12 citations
- Jc9) F.Wagner, S.Bäumel, J.Baldzuhn, F.Volpe and 49 coauthors
W7-AS: One step of the Wendelstein stellarator line
Phys. of Plasmas **12**, 072509 (2005)
 13 citations

- Jc8) B.Lloyd, J-W.Ahn, R.J.Akers, F.Volpe and 65 coauthors
MAST and the impact of low aspect ratio on tokamak physics
Plasma Phys. Control. Fusion **46**, B477 (2004)
 5 citations
- Jc7) H.P.Laqua, H.Maassberg, F.Volpe, W7-AS Team and ECRH-Group
Electron Bernstein Wave Heating and Current Drive in Overdense Plasmas at the Wendelstein 7-AS Stellarator
Nucl. Fusion **43**, 1324 (2003)
 4 citations
- Jc6) H.P.Laqua, H.Maassberg, N.Marushchenko, F.Volpe, A.Weller, W7-AS Team, W.Kasperek and ECRH-Group
Electron-Bernstein-Wave Current Drive in an Overdense Plasma at the Wendelstein 7-AS Stellarator
Phys. Rev. Lett. **90**, 75003 (2003)
 21 citations
- Jc5) F.Wagner, R.Burhenn, F.Gadelmeier, F.Volpe and 48 coauthors
Major Results from the Wendelstein 7-AS Stellarator
Proc.19th IAEA Fusion Energy Conference, Lyon (France), 14-19 Oct.2002, IAEA-CN-94, paper OV/2-4
- Jc4) V.Erckmann, H.P.Laqua, H.Maassberg, N.B.Marushchenko, M.Romé, F.Volpe, W.Kasperek, G.Müller and the W7-AS Team
ECRH at W7-AS
Proc.19th IAEA Fusion Energy Conference, Lyon (France), 14-19 Oct.2002, IAEA-CN-94, paper EX/W-3
- Jc3) H.H.Hacker, R.Burhenn, K.Kond, F.Volpe and 73 coauthors
Spectra of highly ionized xenon (6-30 nm) excited in W7-AS plasmas
Appl. Phys. B **73**, 59 (2001)
 3 citations

1999 - 2000

- Jc2) R.Jaenicke, M.Anton, J.Baldzuhn, F.Volpe and 52 coauthors
Operational boundaries on the stellarator W7-AS at the beginning of the divertor experiments
Proc.18th IAEA Fusion Energy Conf., Sorrento (Italy), 4-10 October 2000, IAEA-CN-77, paper OV4/3
- Jc1) F.Orsitto, A.Brusadin, Yu.Brodsky, S.Cirant, S.Filchenkov, G.Grosso, E.Giovannozzi, L.Lubyako, A.Perminov, U.Tartari, F.Volpe
Characterization and Preliminary Results of the Collective Thomson Scattering (CTS) System on FTU Tokamak
Rev. Sci. Instrum. **70**, 1158 (1999)
 4 citations

First author non-refereed conference papers

- Cf12) **A Spinning Mirror for Fast Angular Scans of EBW Emission**
F.Volpe, J.Storrs and V.Shevchenko
Proc.15th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC-15), 10-13 March 2008, Yosemite National Park (USA)

- Cf11) **Locked Neoclassical Tearing Mode Control by Means of Applied Magnetic Perturbations and Electron Cyclotron Current Drive**
 F.Volpe, R.J.La Haye, R.Prater and E.J.Strait
 Proc.34th EPS Conf. Contr. Fusion and Plasma Phys., 2-6 July 2007, Warsaw (Poland), P1.132
 ECA **31F**, P-1.132 (2007)
 Preprint also available as GA report GA-A25863 (July 2007)
- Cf10) **Electron Cyclotron Emission Measurements of Rotating and Interacting Magnetic Islands in DIII-D**
 F.Volpe, M.E.Austin and R.J.La Haye
 Proc.34th EPS Conf. Contr. Fusion and Plasma Phys., 2-6 July 2007, Warsaw (Poland), P1.131
 ECA **31F**, P-1.131 (2007)
- Cf9) **Locked Neoclassical Tearing Mode Control on DIII-D by ECCD and Magnetic Perturbations**
 F.Volpe, R.J.La Haye, R.Prater and E.J.Strait
 Proc.4th IAEA Technical Meeting on ECRH Physics and Technology for ITER
 6-8 June 2007, Vienna (Austria)
 Preprint also available as GA report GA-A25864 (June 2007)
- Cf8) F.Volpe
Weakly relativistic dielectric tensor for arbitrary wavenumbers
 Proc.33rd EPS Conf. Contr. Fusion and Plasma Phys., 19-23 June 2006, Rome (Italy)
 ECA **30I**, D5.019 (2006)
- Cf7) F.Volpe and N.B.Marushchenko
Weakly relativistic dielectric tensor for arbitrary wavenumbers
 Proc.14th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC-14), 9-12 May 2006, Santorini (Greece)

2000 - 2005

- Cf6) F.Volpe, B.Lloyd and M.R.O'Brien
Fokker-Planck Modelling of ECCD for NTM Stabilisation in ITER
 Proc.13th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC-13), 17-20 May 2004, Nizhny Novgorod (Russia), p.261-266
- Cf5) F.Volpe, H.P.Laqua and the W7-AS Team
Electron Bernstein emission diagnostic of electron temperature profiles at W7-AS Stellarator
 Proc. German-Polish Conf. on Plasma Diagnostics for Fusion and Applications (GPPD), Greifswald (Germany), 4-6 Sept.2002
- Cf4) F.Volpe, H.P.Laqua and the W7-AS Team
Electron Bernstein emission diagnostic of electron temperature profiles at W7-AS Stellarator
 Proc.12th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC12), Aix-en-Provence (France), 13-16 May 2002, p.221
- Cf3) F.Volpe, H.P.Laqua and the W7-AS Team
Electron Bernstein emission diagnostic of electron temperature profiles at W7-AS Stellarator
 Proc.Int. Conf. Advanced Diagn. for Magn. and Inertial Fusion, Varenna (Italy), 3-7 Sept.2001, p.347
- Cf2) F.Volpe, H.P.Laqua, H.J.Hartfuß and the W7-AS Team
Electron Bernstein emission diagnostic of electron temperature profiles at W7-AS stellarator
 Proc.28th EPS Conf. Contr. Fusion and Plasma Phys., Madeira, ECA **25A**, 1329 (2001), paper P3.080
- Cf1) F.Volpe, H.P.Laqua and the W7-AS Team
Development of an electron Bernstein emission diagnostic for temperature profiles above the ECE-cutoff density at Wendelstein 7-AS Stellarator
 Proc.27th EPS Conf. Contr. Fusion and Plasma Phys., Budapest, ECA **24B**, 1669 (2000), paper P4.117

Coauthored non-refereed conference papers

Electron Bernstein and Electron Cyclotron Waves in Reversed Field Pinches (*Modelling, 2008-09*)

- h3) R.Bilato, F.Volpe, A.Köhn, E.Poli, R.Cavazzana and R.Paccagnella
Electron Cyclotron Heating in RFP Plasmas
Proc.18th Topical Conference on Radio Frequency Power in Plasmas (RF-18)
24-26 June 2009, Ghent (Belgium)
- h2) A.Köhn, R.Bilato, F.Volpe , R.Paccagnella, D.Farina, U.Stroth
Full-wave simulations of the O-X-B mode conversion scenario in the RFX-mode reversed field pinch device
Proc.18th Topical Conference on Radio Frequency Power in Plasmas (RF-18)
24-26 June 2009, Ghent (Belgium)
- h1) R.Bilato, E.Poli, F.Volpe, D.Farina, R.Paccagnella, M.Brambilla
ECCD Feasibility Study for RFX-mod
Proc. 35th EPS Conf. Contr. Fusion and Plasma Phys., 9-13 June, Hersonissos, Crete (Greece)

Electron Cyclotron Heating and Applications in ASDEX Upgrade (*Exp. & Modelling, 2008*)

- g6) G. Granucci, B. Esposito, M. Maraschek, F. Volpe and 10 coauthors
ECRH: a tool to control Disruptions in Tokamaks
Proc.18th Topical Conference on Radio Frequency Power in Plasmas (RF-18)
24-26 June 2009, Ghent (Belgium)
- g5) H.Zohm, J.Adamek, C.Angioni, F.Volpe and 178 coauthors
Overview of ASDEX Upgrade Results
Proc.22nd IAEA Fusion Energy Conf., Geneva (Switzerland), 13-18 October 2008, paper OV/2-3
- g4) B.Esposito , G.Granucci , S.Nowak , J.R.Martin-Solis, L.Gabellieri , P.Smeulders , M.Maraschek, G.Pautasso, J.Stober, W.Treutler, L. F.Volpe, H.Zohm, FTU, ECRH, and ASDEX Upgrade teams **Disruption Control on FTU and ASDEX Upgrade with ECRH**
Proc.22nd IAEA Fusion Energy Conf., Geneva (Switzerland), 13-18 October 2008, paper EX/7-3a
- g3) L.Giannone, W.Schneider, P.McCarthy, F.Volpe and 12 coauthors
Real time plasma diagnostics for tokamak control with FPGA and multicore PCIe systems
Proc. Virtuelle Instrumente in der Praxis (VIP 2008), organized by National Instruments
8-9 October 2008, Berlin (Germany)
- g2) D.Wagner, T.Franke, F.Leuterer, F.Volpe and 21 coauthors
Multi-frequency ECRH at ASDEX Upgrade
7th International Workshop "Strong Microwaves: Sources and Applications"
July 27-Aug. 2, 2008, Nizhny Novgorod (Russia)
- g1) Nathaniel Hicks, W.Suttrop, J.Stober, F.Volpe and 9 coauthors
Measurement of NTMs, Modulated ECRH Deposition, and Current Ramp-Up MHD Activity Using the Upgraded 1 MHz ECE Radiometer on ASDEX Upgrade
Proc. 35th EPS Conf. Contr. Fusion and Plasma Phys., 9-13 June, Hersonissos, Crete (Greece)

Control of Neoclassical Tearing Modes and Locked Modes in DIII-D (*Experiments, since 2006*)

- f4) R.Prater, R.J.La Haye, T.C.Luce, C.C.Petty, E.J.Strait, J.R.Ferron, D.A.Humphreys, J.Lohr, F.Volpe and A.S.Welander
Effects of Electron Cyclotron Current Drive, Counter-NBI and Rotational Entrainment on Neoclassical Tearing Mode Control in DIII-D

Proc.34th EPS Conf. Contr. Fusion and Plasma Phys., 2-6 July 2007, Warsaw (Poland), P1.134
ECA **31F**, P-1.134 (2007)
Preprint also available as GA report GA-A25827 (June 2007)

- f3) R.Prater, R.J.La Haye, J.R.Ferron, D.A.Humphreys, T.C.Luce, C.C.Petty, E.J.Strait, F.Volpe, A.S.Welander
Control of Neoclassical Tearing Modes for Improved Performance in ITER
Proc.5th IAEA Technical Meeting on Steady State Operations (SSO) of Magnetic Fusion Devices, 14-17
May 2007, Daejeon (Korea)
- f2) M.R.Wade, G.Abla, S.L.Allen, F.Volpe and 345 coauthors
Development in the DIII-D Tokamak of Advanced Operating Scenarios and Associated Control Techniques for ITER
Proc.21st IAEA Fusion Energy Conf., Chengdu (China), 16-21 October 2006, paper OV/1-4
- f1) T.C.Luce, K.H.Burrell, R.J.Buttery, F.Volpe and 19 coauthors x
Dependence of Confinement and Stability on Variation of the External Torque in the DIII-D Tokamak
Proc.21st IAEA Fusion Energy Conf., Chengdu (China), 16-21 October 2006, paper PD-3
Preprint also available as GA report GA-A25671 (November 2006)

Electron Cyclotron Current Drive for Control of Instabilities in ITER (*Modelling, 2003-2006*)

- e3) R.Prater, D.Farina, Yu.Gribov, R.W.Harvey, E.Poli, A.S.Smirnov, F.Volpe, E.Westerhof, A.Zvonkov and ITPA Steady State Operations Topical Group
Benchmarking of Codes for Electron Cyclotron Heating and Electron Cyclotron Current Drive under ITER Parameters
Proc.14th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC-14), 9-12 May 2006, Santorini (Greece)
Preprint also available as General Atomics GA-25510 Report (July 2006)
- e2) H.Zohm, D.Farina, B.Lloyd, S.Nowak, E.Poli, G.Ramponi, G.Saibene, O.Sauter, A.G.A.Verhoeven, F.Volpe, E.Westerhof
The ITER ECRH Upper Launcher - Physics Goals and Design Requirements
Proc.13th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC-13), 17-20 May 2004, Nizhny Novgorod (Russia), p.267-272
- e1) G.Ramponi, H.Bindslev, D.Farina, G.Giruzzi, B.Lloyd, S.Nowak, E.Poli, V.Shevchenko, F.Volpe, H.Zohm
Optimisation of the ITER ECRH Top Launcher
Proc.IAEA Technical Meeting on ECRH Physics and Technology for ITER, 14-16 July 2003, Kloster Seeon (Germany)

Solenoidless Plasma Startup in Spherical Tokamaks (*Experiments, 2005-2006*)

- d2) F.Alladio, P.Costa, A.Mancuso, P.Micozzi, R.Akers, G.Cunningham, M.Gryaznevich, M.Hood, G.McArdle, V.Shevchenko, A.Sykes, F.Volpe, A.Dnestrovskij
Status and perspectives of MAST start-up in the absence of solenoid flux
Proc.33rd EPS Conf. Contr. Fusion and Plasma Phys., 19-23 June 2006, Rome (Italy)
ECA **30I**, P-1.095 (2006)
- d1) A.Sykes, F.Alladio, P.Costa, N.Conway, G.Cunningham, A.Dnestrovskij, M.Gryaznevich, J.Hicks, M.Hood, A.Mancuso, G.McArdle, P.Micozzi, M.Price, F.Volpe, M.J.Walsh, M.Wisse
Plasma current formation in MAST without use of central solenoid
Proc.32nd EPS Conf. Contr. Fusion and Plasma Phys., 27 June - 1 July 2005, Tarragona (Spain), ECA **29C**, P-4.112 (2005)

Electron Bernstein Waves in Tokamaks and Spherical Tokamaks (*Experiments, 2003-2007*)

- c11) V.Shevchenko, G.Cunningham, A.Gurchenko, E.Gusakov, B.Lloyd, M.O'Brien, A.Saveliev, A.Surkov, F.Volpe, M.Walsh **Electron Bernstein Wave Studies in MAST**
Proc.17th Topical Conference on Radio Frequency Power in Plasmas (RF-17)
7-9 May 2007, Clearwater, FL (USA)
- c10) A.Pochelon, A.Mueck, Y.Camenen, S.Coda, L.Curchod, B.P.Duval, T.P.Goodman, I.Klimanov, H.Laqua, Y.Martin, J.-M.Moret, L.Porte, A.Sushkov, V.S.Udintsev, F.Volpe and the TCV Team
Electron Bernstein Wave Heating of Overdense H-mode Plasmas in the TCV Tokamak via O-X-B Double Mode Conversion
Proc.21st IAEA Fusion Energy Conf., Chengdu (China), 16-21 October 2006, paper EX/P6-2
- c9) A.Fasoli, S.Alberti, P.Amorim, F.Volpe and 59 coauthors
Overview of TCV Results
Proc.21st IAEA Fusion Energy Conf., Chengdu (China), 16-21 October 2006, paper OV/3-3
- c8) B.Lloyd, R.J.Akers, F.Alladio, F.Volpe and 83 coauthors
Overview of Physics Results from MAST
Proc.21st IAEA Fusion Energy Conf., Chengdu (China), 16-21 October 2006, Paper OV/2-3
- c7) V.Shevchenko, G.Cunningham, A.Gurchenko, E.Gusakov, B.Lloyd, M.O'Brien, J.Preinhaelter, A.Saveliev, A.Surkov, F.Volpe, M.Walsh
Electron Bernstein Wave Heating Experiments on MAST
Proc.21st IAEA Fusion Energy Conf., Chengdu (China), 16-21 October 2006, Paper EX/P6-22
- c6) V.Shevchenko, G.Cunningham, A.Gurchenko, E.Gusakov, A.Saveliev, A.Surkov, F.Volpe
EBW Heating Experiments on MAST
Proc.14th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC-14), 9-12 May 2006, Santorini (Greece)
- c5) A.Surkov, G.Cunningham, A.Gurchenko, E.Gusakov, V.Shevchenko, F.Volpe
Parametric decay instability accompanying electron Bernstein wave heating in MAST
Proc.6th International Workshop "Strong Microwaves in Plasmas", Nizhny Novgorod - St.Petersburg (Russia), 25 July - 1 August 2005, paper H18
- c4) A.Surkov, G.Cunningham, A.Gurchenko, E.Gusakov, V.Shevchenko, F.Volpe
Parametric decay instability accompanying electron Bernstein wave heating in MAST
Proc.32nd EPS Conf. Contr. Fusion and Plasma Phys., 27 June - 1 July 2005, Tarragona (Spain), ECA **29C**, P-5.103 (2005)
- c3) V.F.Shevchenko, Y.Baranov, A.N.Saveliev, F.Volpe, J.Zajac
EBW Current Drive Start-up Scenario for MAST
Proc.13th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC-13), 17-20 May 2004, Nizhny Novgorod (Russia), p.255-260
- c2) V.F.Shevchenko, Y.Baranov, M.O'Brien, A.D.Pilya, J.Preinhaelter, A.N.Saveliev, E.N.Tregubova, F.Volpe
Prospects of EBW Emission Diagnostics and EBW Heating in Spherical Tokamaks
Proc.13th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC-13), 17-20 May 2004, Nizhny Novgorod (Russia), p.162-171
- c1) V.Shevchenko, E.Arends, Yu.Baranov, M.O'Brien, G.Cunningham, M.Gryaznevich, B.Lloyd, A.Sykes, F.Volpe, A.Piliya, A.Saveliev, E.Tregubova
Electron Bernstein wave studies on COMPASS-D and MAST
Proc.15th Topical Conf. on Radio Freq. Power in Plasmas (RF15), Wyoming (USA), 19-21 May 2003, AIP Conf.Proc.**694** (1) p.359

Electron Bernstein Waves in Stellarators (*Experiments & Modelling, 2002, 2005-2006*)

- b7) N.B.Marushchenko, Yu.Turkin, F.Volpe, V.Ereckmann, H.P.Laqua, H.Maaßberg
Ray Tracing Calculations for the W7-X Stellarator by BRT code
Proc.14th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC-14), 9-12 May 2006, Santorini (Greece)
- b6) S.Ferrando i Margalet, W.A.Cooper, F.Volpe, F.Castejon
Electron Cyclotron Current Drive Compensation of the Bootstrap Current in Quasi-symmetric Reactor Devices
Proc.14th International Stellarator Workshop, 3-7 October 2005, Madrid (Spain)
- b5) N.B.Marushchenko, F.Volpe, V.Ereckmann, H.P.Laqua, H.Maassberg and the W7-AS Team
Estimations of electron Bernstein current drive efficiency at the W7-AS Stellarator
Proc. 5th Internat. Workshop "Strong Microwaves in Plasmas", Russia, 1-9 Aug.2002, paper H14, p.378
- b4) H.P.Laqua, V.Ereckmann, F.Volpe, H.Maassberg, W7-AS Team and ECRH Group
Electron Bernstein wave heating and current drive in overdense plasmas at the Wendelstein 7-AS Stellarator
Proc.29th EPS Conf. Contr. Fusion and Plasma Phys., Montreux (Switzerland), ECA **26B**, D-5.010 (2002)
- b3) H.P.Laqua, V.Ereckmann, F.Volpe, H.Maassberg, W7-AS Team and ECRH Group
Electron Bernstein wave heating and current drive in overdense plasmas at the Wendelstein 7-AS Stellarator
Proc. 12th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC12), Aix-en-Provence (France), 13-16 May 2002, p.403
- b2) R.Jaenicke, S.Baeumel, J.Baldzuhn, F.Volpe and 41 coauthors
Overview on recent W7-AS results
Proc.13th International Stellarator Workshop, Canberra (Australia) 25/2-1/3/2002, paper No.OI.6
- b1) H.P.Laqua, V.Ereckmann, F.Volpe, W7-AS Team and ECRH Group
Electron Bernstein wave heating and current drive in overdense plasmas at the Wendelstein 7-AS Stellarator
Proc.13th International Stellarator Workshop, Canberra (Australia) 25/2-1/3/2002, paper No.OIV.3

Collective Thomson Scattering (*Experiments, 1997, 2005*)

- a2) U.Tartari, G.Grosso, G.Granucci, L.V.Lubyako, A.G.Shalashov, E.V.Suvorov, F.P.Orsitto, A.Simonetto, S.Nowak, F.Volpe, V.Muzzini, S.Garavaglia, G.Grossetti
Evidence of Gyrotron Perturbation in Collective Thomson Scattering below Gyroresonance in FTU
Proc.6th International Workshop "Strong Microwaves in Plasmas", Nizhny Novgorod - St.Petersburg (Russia), 25 July - 1 August 2005, paper H34
- a1) F.Orsitto, A.Brusadin, Yu.Brodsky, S.Filchenkov, G.Grosso, E.Giovannozzi, L.Lubyako, A.Perminov, U.Tartari, F.Volpe
Characterization and Preliminary Results of the Collective Thomson Scattering (CTS) System on FTU Tokamak
Proc.8th International Symposium on Laser-Aided Plasma Diagnostics, 22-26 Sept.1997, Doorwerth (Netherlands), p.277

Reports

- R4) F.Volpe and B.Lloyd
Physics analysis, prototyping & beam line mock-up tests for the ITER ECRH Upper Launcher - Report on Deliverables (f).6 (Analysis of Sensitivity to steering errors in the ECH&CD upper launcher) and (f).7.1 (Integrated analysis of Horizontal & Upper Launcher performance) and Additions to March 2004 Report on Deliverable (f).5.2 (Effect of change of plasma parameters and profiles on CD efficiency)
Dec.2004 (21 pages)
- R3) F.Volpe and B.Lloyd
Physics analysis, prototyping & beam line mock-up tests for the ITER ECRH Upper Launcher - Report on Deliverables (f).2.1 (Specific analysis of NTM stabilisation for multiple launcher position), (f).3.1 (Specific analysis of NTM stabilisation), (f).5.2 (Effect of change of plasma parameters and profiles on CD efficiency)
March 2004 (62 pages)
- R2) F.Volpe
Electron Bernstein emission diagnostic of electron temperature profile at W7-AS Stellarator
IPP Report 13/1, March 2003 (124 pages)
- R1) F.Volpe
Metodi numerici alle differenze finite nella magnetoidrodinamica dei metalli liquidi
Internal Report CMFD Univ. Trieste, Nov.1998

Moreover, contributions were given to the following annual reports:

- ENEA 1997/98
- IPP 1999, 2000, 2001 (Chapter “Wendelstein 7-AS”, Sec.3.2)
- UKAEA Fusion 2003/04 (Chap.8), 2004/05 (Chap.5 and 8), 2005/06 (Chap.5), 2006/07 (Chap.5)

Finally, publications Cf11, Cf9 and 3 coauthored conference proceedings are also available as, respectively, General Atomics reports GA-A25863, GA-A25864, GA-A25827, GA-A25671, GA-A25510.

Books of abstracts of conferences without proceedings

- B19) J. Kessler, F. Volpe, T.E. Evans, H. Ali, A. Punjabi
Magnetic Transport Barriers in the DIII-D Tokamak
51st APS Annual Meeting of the Division of Plasma Physics, Atlanta (USA), 2-6 Nov.2009
Bull. Am. Phys. Soc. , **54** (2009)
- B18) R.J. Fonck, M.W. Bongard, E.T. Hinson, B.A. Kujak-Ford, B.T. Lewicki, A.J. Redd, D.J. Schlossberg, F. Volpe, G.R. Winz
The Pegasus Toroidal Experiment Program
51st APS Annual Meeting of the Division of Plasma Physics, Atlanta (USA), 2-6 Nov.2009
Bull. Am. Phys. Soc. , **54** (2009)
- B17) F. Volpe, S. Gerhardt, S. Sabbagh, R. Bell, J. Robinson and L. Delgado-Aparicio
Effect of Impurities and Wall Conditioning on the On- set of NTMs in NSTX
51st APS Annual Meeting of the Division of Plasma Physics, Atlanta (USA), 2-6 Nov.2009
Bull. Am. Phys. Soc. , **54** (2009)
- B16) F. Volpe, R. Fonck, A. Redd, T. Bigelow, S.J. Diem
EBW Heating in the Pegasus Spherical Experiment
51st APS Annual Meeting of the Division of Plasma Physics, Atlanta (USA), 2-6 Nov.2009
Bull. Am. Phys. Soc. , **54** (2009)

- B15) F. Volpe
Proposed MHD Control in Pegasus
 51st APS Annual Meeting of the Division of Plasma Physics, Atlanta (USA), 2-6 Nov.2009
 Bull. Am. Phys. Soc. , **54** (2009)
- B14) F.A.G. Volpe, M.E. Austin, R.J. La Haye, J. Lohr, R. Prater, E.J. Strait and A.S. Welander
Advanced techniques for neoclassical tearing mode control in DIII-D
 50th APS Annual Meeting of the Division of Plasma Physics, Dallas (USA), 17-21 Nov.2008
 Bull. Am. Phys. Soc. , **53**, No.14, p.318, VI2 4 (2008)
- B13) D.Wagner, T.Franke, F.Leuterer, F.Volpe and 21 coauthors
Progress with the New Multi-Frequency ECRH System at ASDEX Upgrade
 IRMMW-THz 2008 : Conf.Digest of the 2008 Joint 33st Internat.Conf. on Infrared and Millimeter Waves
 and 16th Internat.Conf.on Terahertz Electronics, Pasadena, California, USA, September 15-19, 2008
- B12) D.Wagner, T.Franke, F.Leuterer, F.Volpe and 21 coauthors
Status of the New Multi-Frequency ECRH System at ASDEX Upgrade
 US-EU-JPN RF Heating Technology Workshop, San Diego, USA, September 10-12, 2008
- B11) D.Wagner, J.Stober, F.Leuterer, F.Volpe and 23 coauthors
Progress with the New Multi-Frequency ECRH System for ASDEX Upgrade
 35th IEEE Int. Conf. on Plasma Science (ICOPS 2008), Karlsruhe, Germany, June 15-19, 2008
- B10) F.Volpe, R.J.La Haye, R.Prater, E.J.Strait
**Locked Neoclassical Tearing Mode Control on DIII-D by Electron Cyclotron Current Drive
 and Magnetic Perturbations**
 49th APS Annual Meeting of the Division of Plasma Physics, Orlando, FL (USA), 12-16 Nov.2007
 Bull/. Am. Phys. Soc. , **52**, No.16, p.102, GO3 10 (2007)
- B9) H.Rinderknecht, R.K.Fisher, E.M.Hollmann, M.J.Lanctot, F.Volpe
Soft X-Ray Tomography at DIII-D
 49th APS Annual Meeting of the Division of Plasma Physics, Orlando, FL (USA), 12-16 Nov.2007
 Bull. Am. Phys. Soc. , **52**, No.16, p.154, JP8 18 (2007)
- B8) F.Volpe, R.La Haye, T.Scoville, E.J.Strait, A.Welander
Prediction and Control of Locked Modes at DIII-D
 48th APS Annual Meeting of the Division of Plasma Physics, Philadelphia (USA), 30 Oct. - 3 Nov.2006
 Bull. Am. Phys. Soc. , **51**, No.7, p.351, ZP1 30 (2006)
- B7) F.Volpe, F. Volpe, M.E. Austin, R.J. La haye, C.C. Petty, M.A. Makowski
**Motional Stark Effect and ECE Measurements of Rotating and Interacting Magnetic Islands
 on DIII-D**
 48th APS Annual Meeting of the Division of Plasma Physics, Philadelphia (USA), 30 Oct. - 3 Nov.2006
 Bull. Am. Phys. Soc. , **51**, No.7, p.351, ZP1 32 (2006)
- B6) F.Volpe and V.Shevchenko
A Spinning Mirror for Fast Angular Scan of EBW Emission
 48th APS Annual Meeting of the Division of Plasma Physics, Philadelphia (USA), 30 Oct. - 3 Nov.2006
 Bull. Am. Phys. Soc. , **51**, No.7, p.351, ZP1 31 (2006)
- B5) G.Cunningham, A.Gurchenko, E.Gusakov, V.Shevchenko, A.Surkov, F.Volpe
Parametric Decay Instability accompanying Electron Bernstein Wave Heating in MAST
 32nd Conference on Plasma Physics and CF, Zvenigorod (Russia), 14-18 February 2005
- B4) S. Ferrando i Margalet, W.A.Cooper, L.Porte, F.Volpe, F.Castejon
Bootstrap Current compensation with Electron Bernstein Waves in Reactor-Size Stellarators
 46th APS Annual Meeting of the Division of Plasma Physics, Savannah, Georgia (USA), 15-19 Nov.2004
 Bull. Am. Phys. Soc. , **49**, No.8, p.309, PP1 53
- B3) F.Volpe and V.Shevchenko
Electron Bernstein Wave Emission Studies on the Mega-Ampère Spherical Tokamak
 31st IoP Plasma Physics Group Conference, York (U.K.), 5-8 April 2004, P.28

- B2) F.Volpe, H.P.Laqua and the W7-AS Team
Electron Bernstein emission diagnostic of electron temperature profile at W7-AS stellarator
Verhandl.DPG (VI) **36**, 153 (Berlin 2001)
- B1) F.Volpe, H.P.Laqua, H.J.Hartfuß and the W7-AS Team
Die Entwicklung einer Diagnostik zu Bestimmung von Elektronentemperaturprofilen aus der Elektron-Bernstein-Wellen-Strahlung am Wendelstein7-AS Stellarator
Verhandl.DPG (VI) **35**, 1025 (Bonn 2000)

Non-refereed journals

F.Volpe, H.P.Laqua and the W7-AS Team
Electron Bernstein emission electron temperature profile at the W7-AS Stellarator
Stellarator News **77**, 1 (2001) (also available at: www.ornl.gov/fed/stelnews/stelnews.html)

Lecture Notes

F.Volpe
Plasma Waves and Heating
IPP Summer University on Plasma Physics and Fusion Research, 22-26 Sept. 2008 Garching (Germany)