

Personal data and present situation

Personal Data

Surnames: Rodríguez-Solano Ribeiro Name: Emilia
Professionally known as: Emilia R. **Solano**
Spanish ID #: 36036676T Passport #: Birth Date : 14/03/1960 Gender: Female

Present situation

Organisation: CIEMAT
Department, School or Institute: Depart. Fusión
Depart/Secion/Unit: Laboratorio Nacional de Fusión
Postal address: Avda Complutense, 22. Madrid, E-28040
Phone: +34-91-346-6162 Fax: 91-346-6153 e-mail: emilia.solano@ciemat.es

Home address in Spain
E. R. Solano
Ribera de Manzanares, 79, 4º Izda, Madrid, 28008, Spain

Presently seconded at JET CSU, K1-1-105, 01235 46 4500.

Research lines

Fusion plasma physics, tokamaks, ELMs, equilibrium, criticality, structural stability of equations, transport barrier, magnetic phase transitions, pedestal MHD
Speciality (UNSECO Code): 2204.10, 2208.09

Academic Studies

| Degree | Centre | Date |
|---|-----------------------------|---------|
| Licenciada en Ciencias Físicas (5 year Bachelor's Degree in Physics) | Univ. Complutense de Madrid | 09/1982 |
| Licenciada con Grado (Master Degree in Physics) | Univ. Complutense de Madrid | 05/1983 |
| Doctorate in Physical Sciences (PhD) | Univ. Complutense de Madrid | 12/1986 |

Languages (M = medium, W = well, F = fluently)

| Language | Speak | Read | Escribe |
|------------|-------|------|---------|
| Spanish | F | F | F |
| English | F | F | F |
| Portuguese | W | W | W |
| French | M | M | M |

Personal data and present situation

Appointment history:

| Position | Institution | Dates |
|--|---|-------------|
| Scholarship Institute Nuclear Studies | Junta de Energía Nuclear, later called CIEMAT | 10/83-12/86 |
| Scholarship NATO | Fusion Energy Division, ORNL | 3/85-3/86 |
| Postdoctoral Fellow | Fusion Research Center, Univ. Texas, Austin, USA | 5/87-10/90 |
| Research Associate | Fusion Research Center, Univ. Texas, Austin, USA | 11/90-6/96 |
| Guest Researcher | Max-Planck-Institut für PlasmaPhysik, Garching, G | 5/97-6/98 |
| Researcher (fixed term contract) | CIEMAT | 2/99-7/02 |
| Researcher Ramón y Cajal (fixed term contract) | CIEMAT | 8/02-5/05 |
| Civil servant, research scientist | CIEMAT | 5/05-now |

Research projects, publicly funded by Spanish Government

Project title: Study of transport barriers in magnetically confined plasmas

Financed by: Ministerio de Ciencia y Tecnología, Ramón y Cajal Programme, 2001 research funds.

Parties: CIEMAT

Duration, from: 8/02 to: 5/05 Amount: 5,707.51 Euros

Principal Investigator: Emilia Rodríguez-Solano Ribeiro

Number of researchers: 1

Project title: Study of Criticality in Tokamaks

Financed by: Ministerio de Ciencia y Tecnología, PN I+D ENE2005-06929

Parties: CIEMAT

Duration, from: 01/01/2007 to: 31/12/2007 Amount: 7,140 Euros

Principal Investigator: Emilia Rodríguez-Solano Ribeiro

Number of researchers: 1

Publications

(Key: L = complete book, BC = book chapter, A = article, R = "review", E = editor)

AUTHORS (ordered): E. R. Solano, K. C. Shaing
TITLE: *Calculation of Neoclassical Fluxes in the Plateau Regime for Nonaxisymmetric Toroidal Plasmas*
REF. JOURNAL/BOOK: Phys. Fluids 30 (2), 1987. KEY: A

AUTHORS (ordered): E. R. Solano, J. A. Rome, S. P. Hirshman,
TITLE: *Study of transport in the Flexible Helic TJ-II,*
REF. JOURNAL/BOOK: Nucl. Fusion, Vol. 28, No. 1 (1988). KEY: A

AUTHORS (ordered): P.H. Edmonds, E.R. Solano, A.J. Wootton, D. Gao, X. Mao, G. Li, W. Zhu,
TITLE: *The Design of an Inner Poloidal Divertor for the TEXT Tokamak*, Proc. of the 15th Symposium on Fusion Technology, Utrecht, 19-23 September 1988. Vol I, page 342, Elsevier Sc. Pub., Amsterdam, 1989.
REF. JOURNAL/BOOK: Fusion Tech., 15, 342-346, (1988). KEY: A

AUTHORS (ordered): P.H. Edmonds, S.J. Wang and E.R. Solano,
TITLE: *Simulation studies of the TEXT Upgrade plasma radial stability using an exact power supply model (EMTP).* Proc. of the 16th Symposium on Fusion Technology, London, September 1990; Vol I, page 592, Elsevier Sc. Publishers B.V., 1991.
REF. JOURNAL/BOOK: Fusion Technology,. KEY: A

AUTHORS (ordered): E.R. Solano, G.H. Neilson, and L.L. Lao,
TITLE: *Equilibrium and Stability Studies for an Iron Core Tokamak with a Poloidal Divertor,*
REF. JOURNAL/BOOK: Nuclear Fusion 30, (1990), 1107. KEY: A

AUTHORS (ordered): E. R. Solano, R.D. Hazeltine
TITLE: *Effect of asymmetric sources on tokamak neoclassical transport in the plateau regime*
REF. JOURNAL/BOOK: Phys. Fluids B 2 (9), 1990, 2113. KEY: A

AUTHORS (ordered): E.R. Solano
TITLE: *Effect of plasma minor radius changes on tokamak position stability,*
REF. JOURNAL/BOOK: Plasma Physics and Controlled Fusion, Vol. 32, No. 9 (1990), 759 . KEY: A

AUTHORS (ordered): A.A. Ware, R.D. Hazeltine, M. Calvin, P.M. Valanju, E. Solano
TITLE: *Effect of low energy ions and neutrals on tokamak transport,*
REF. JOURNAL/BOOK: Plasma Physics and Controlled Nuclear Fusion Research, 1990, Vol. 2, 351-359, IAEA, Vienna, 1991 (Proceedings of the 13th International Conference on Plasma Physics and Controlled Nuclear Fusion, Washington, October 1990). KEY: A

AUTHORS (ordered): R.D. Hazeltine, M.D. Calvin, P.M. Valanju, E.R. Solano
TITLE: *Analytical Calculation of Neutral Transport and its effects on ions*
REF. JOURNAL/BOOK: Nuclear Fusion 32, (1992), 3. KEY: A

AUTHORS (ordered): P.M. Valanju, M.D. Calvin, R.D. Hazeltine, E. R. Solano,
TITLE: *The effect of charge-exchange on plasma flows*
REF. JOURNAL/BOOK: Physics of Fluids B 4 (8),(1992), 2675. KEY: A

Publications

(Key: L = complete book, BC = book chapter, A = article, R = "review", E = editor)

AUTHORS (ordered): D.P. O'Brien, L.L. Lao, E.R. Solano et. al.
TITLE: *Equilibrium analysis of iron core tokamaks using a full domain method.*
REF. JOURNAL/BOOK: Nuclear Fusion 32 (8), (1992), 1351. KEY: A

AUTHORS (ordered): W. L. Rowan, A.G. Meigs, E. R. Solano, P. M. Valanju
TITLE: *Rotation in Ohmically heated tokamaks: experiment and theory*
REF. JOURNAL/BOOK: Physics of Fluids B 5 (7), 1993, 2485. KEY: A

AUTHORS (ordered): E. R. Solano, R. D. Hazeltine
TITLE: *Neoclassical Kinetic theory near an X-point: Plateau regime,*
REF. JOURNAL/BOOK: Physics of Plasmas 1 (3), March 1994. KEY: A

AUTHORS (ordered): A. J. Wootton, R. D. Bengtson, R. V. Bravenik, J. Chen, G. Cima, P. H. Edmonds, M. Freeman, H. Gasquet, K. W. Gentle, G. Hallock, Y. Karzhavin, S. McCool, D. Patterson, P. Phillips, B. Richards, d. Roberts, D. Ross, W. L. Rowan, D. Sing, E. Solano, R. F. Steimle, H. Y. W. Tsui, J. Uglum, Y. Wen, Z. Zhang
TITLE: *Role of Fluctuations in Determining Transport in TEXT,*
REF. JOURNAL/BOOK: IAEA, Proc. 15th Int. Conf. Plasma Phys. and Controlled Nucl. Fusion Res., Vienna, 1995 (Pres. Seville, Sept. 26-Oct. 1, 1994). KEY: A

AUTHORS (ordered): W. L. Rowan, R. D. Bengston, X. Bonnin, P. H. Edmonds, P. D. Hurwitz, E. R. Solano, H.Y.W. Tsui, J. R. Uglum, A. J. Wootton,
TITLE: *Particle balance in diverted plasmas in TEXT-U,*
REF. JOURNAL/BOOK: Jour. Nucl. Mat. 220-222 (1995) 668-671. KEY: A

AUTHORS (ordered): M. S. Foster, J. L. Craig, A. J. Wootton, P. E. Phillips, J. Uglum, E. R. Solano, D. L. Brower, Y. Jiang, S. C. McCool, J. Lierzer and G. Castle
TITLE: *Vaccum compatible, variable cross section magnetic coil diagnostic used in digital feedback control of plasma position in TEXT-Upgrade.*
REF. JOURNAL/BOOK: Rev. Sci. Instrum. 66 (1), Jan. 1995, p.461-463. KEY: A

AUTHORS (ordered): S. B. Zheng, A.J. Wootton and E. R. Solano,
TITLE: *A tokamak equilibrium with arbitrary aspect ratio,*
REF. JOURNAL/BOOK: Physics of Plasmas 3 (3) 1176 (1996). KEY: A

AUTHORS (ordered): E. R. Solano
TITLE: *Fast Ion orbits in Spherical Tokamaks*
REF. JOURNAL/BOOK: Physics of Plasmas 3 (4), 1187 (1996). KEY: A

AUTHORS (ordered): P. H. Edmonds, E. R. Solano, R. V. Bravenec, A. J. Wootton, P. Schoch, T. Crowley, R. Hickok, W. P. West, J. Leuer, P. Anderson
TITLE: *A Study for the Installation of the TEXT HIBP on DIII-D_11th Annual Topical Conference on High Temperature Diagnostics, Monterey, May, 1996.*
REF. JOURNAL/BOOK: Rev. Sci. Instrum. 68, 320 1997 KEY: A

Publications

(Key: L = complete book, BC = book chapter, A = article, R = "review", E = editor)

AUTHORS (ordered): A. Loarte, D.F. Duechs, N. Asakura, G. C.Vlases, H.S. Bosch,, A. Hermann, G. Janeschitz , K. McCormick, H. Pacher, D. Post, E.R. Solano, M. Sugihara, W. Suttrop.

TITLE: Experimental Edge Results and Multimachine Comparisons

REF. JOURNAL/BOOK: Contributions to Plasma Physics, Vol. 38, Nos. 1-2

International Workshop on Plasma Edge Theory in Fusion Devices, Oxford (UK) Sept. 1997

KEY: A

AUTHORS (ordered): Y. Igithkanov, G. Janeschitz, G.W. Pacher, M. Sugihara, H.D. Pacher, D. Post, E. R. Solano, A. Loarte, W. Suttrop et al.

TITLE: Edge Parameter Operational Space and Trajectories for ITER

REF. JOURNAL/BOOK: Plasma Phys. and Controlled Fusion, Vol. 40, 837-844 (1998)

KEY: A

AUTHORS (ordered): N. C. Hawkes, B. C. Stratton, T. Tala, C. D. Challis, G. Conway, R. DeAngelis, C. Giroud, J. Hobirk, E. Joffrin, P. Lomas, P. Lotte, J. Mailloux, D. Mazon, E. Rachlew, S. Reyes-Cortes, E. Solano, and K-D. Zastrow,

TITLE: Observation of Zero Current Density in the Core of JET Discharges with Lower Hybrid Heating and Current Drive,

REF. JOURNAL/BOOK: Phys. Rev. Lett. 87, 115001 (2001)

KEY: A

AUTHORS (ordered): J. Pamela, E. R. Solano

TITLE: From JET to ITER: preparing the next step in fusion research

REF. JOURNAL/BOOK: Physicalia Magazine 23, 83 (2001)

KEY: R

AUTHORS (ordered): N C Hawkes, Y Andrew, C D Challis, R DeAngelis, V Drozdov, J Hobirk, E Joffrin, P Lotte, D Mazon, E Rachlew, S Reyes-Cortes, F Sattin, E. Solano, B C Stratton, T Tala, M Valisa and contributors to the EFDA-JET workprogramme

TITLE: The formation and evolution of extreme shear reversal in JET and its influence on local thermal transport

REF. JOURNAL/BOOK: Plasma Phys. Control. Fusion 44 No 7 (July 2002) 1105-1125

KEY: A

AUTHORS (ordered): J. Pamela, D. Stork, E. R. Solano

TITLE: Overview of results and possibilities for fast particle research on JET

REF. JOURNAL/BOOK: Nucl. Fusion 42 No 8 (August 2002) 1014-1028.

KEY:R

AUTHORS (ordered): J. Pamela, E. R. Solano

TITLE: Overview of JET results

REF. JOURNAL/BOOK: Nuclear Fusion, Vol.43, No.12, December 2003, p.1540-1554

KEY:R

AUTHORS (ordered): D. Testa, A. Fasoli, E. R. Solano

TITLE: Diagnosis and study of Alfvén eigenmodes stability in JET

REF. JOURNAL/BOOK: Review of Scientific Instruments, Vol.74, No. 3, Part 11, March 2003, p.1694-1700KEY:R

AUTHORS (ordered): P. Chappuis, C. Damiani, C. Guerin, F. Hurd, A. Loarte, P. Lomas, A. Lorenz, J. Paméla, A. Peacock, C. Portafaix, J. Rapp, V. Riccardo, F. Rimini, G. Saibene, J. F. Salavy, Y. Sauce, R. Sartori, E. Solano, E. Thomas, P. Thomas, et al.

TITLE: The design of a new JET divertor for high triangularity and high current scenarios

REF. JOURNAL/BOOK: Fusion Engineering and Design, Volumes 66-68, September 2003, 407-411

KEY:A

Publications

(Key: L = complete book, BC = book chapter, A = article, R = "review", E = editor)

AUTHORS (ordered): E. R. Solano

TITLE: Criticality of the Grad-Shafranov equation: transport barriers and fragile equilibria

REF. JOURNAL/BOOK: Plasma Physics and Controlled Fusion, Vol.46, No.3, March 2004, p.L7-L13 KEY: A

<http://stacks.iop.org/0741-3335/46/L7>

AUTHORS (ordered): Many JET EFDA Collaborators (100's, alphabetical order)

TITLE: Invited papers from the 31st European Physical Society Conference on Plasma Physics, London, UK, 28 june–2 july 2004

REF. JOURNAL/BOOK: Plasma Phys. Control. Fusion, Volume 46, Number 12B, December 2004 KEY:E

AUTHORS (ordered): E. R. Solano, Y. Corre, F. Villone, et al.

TITLE: ELMs and strike point jumps

REF. JOURNAL/BOOK: Proceedings of 16th International Conference on Plasma Surface Interactions, Portland, Maine, USA, May 24-28, 2004, published in Journal of Nuclear Materials, Volumes 337-339, 1 March 2005, Pages 747-750 KEY: A

AUTHORS (ordered): Coccoresse V, Albanese R, Altmann H, Cramp S, Edlington T, Fullard K, Gerasimov S, Huntley S, Lam N, Loving A, Riccardo V, Sartori F, Marren C, McCarron E, Sowden C, Tidmarsh J, JET-EFDA contributors, Basso F, Cenedese A, Chitarin G, DegliAgostini F, Grando L, Marcuzzi D, Peruzzo S, Pomaro N, Solano E R

TITLE: Design of the new magnetic sensors for Joint European Torus

REF. JOURNAL/BOOK: Review of Scientific Instruments, Volume 75, No.10, October 2004, Part 11, p.4311-4313. KEY: A

AUTHORS (ordered): T.C. Luce for the DIII-D Team (G. Abla, ... E.R. Solano, ...)

TITLE: Development of burning plasma and advanced scenarios in the DIII-D tokamak

REF. JOURNAL/BOOK: Nucl. Fusion 45 (2005) S86–S97

KEY:R

AUTHORS (ordered): C. Hidalgo, C. Alejaldre, A. Alonso, J. Alonso, L. Almoguera, F. de Aragón, E. Ascasibar, A. Baciero, R. Balbín, E. Blanco, J. Botija, B. Brañas, E. Calderón, A. Cappa, J.A. Carmona, R. Carrasco, F. Castejón, J.R. Cepero, A.A. Chmyga, J. Doncel, N.B. Dreval, S. Eguilior, L. Eliseev, T. Estrada, J.A. Ferreira, A. Fernández, J.M. Fontdecaba, C. Fuentes, A. García, I. García-Cortés, B. Gonçalves, J. Guasp, J. Herranz, A. Hidalgo, R. Jiménez, J.A. Jiménez, D. Jiménez-Rey, I. Kirpichev, S.M. Khrebtov, A.D. Komarov, A.S. Kozachok, L. Krupnik, F. Lapayese, M. Liniers, D. López-Bruna, A. López-Fraguas, J. López-Rázola, A. López-Sánchez, E. de la Luna, G. Marcon, R. Martín, K.J. McCarthy, F. Medina, M. Medrano, A.V. Melnikov, P. Méndez, B. van Milligen, I.S. Nedzelskiy, M. Ochando, O. Orozco, J.L. de Pablos, L. Pacios, I. Pastor, M.A. Pedrosa, A. de la Peña, A. Pereira, A. Petrov, S. Petrov, A. Portas, D. Rapisarda, L. Rodríguez-Rodrigo, E. Rodríguez-Solano, J. Romero, A. Salas, E. Sánchez, J. Sánchez, M. Sánchez, K. Sarkisian, C. Silva, S. Schchepetov, N. Skvortsova, F. Tabarés, D. Tafalla, A. Tolkachev, V. Tribaldos, I. Vargas, J. Vega, G. Wolfers and B. Zurro

TITLE: Overview of TJ-II experiments

REF. JOURNAL/BOOK: Nucl. Fusion 45 (2005) S266-S275

KEY:R

AUTHORS (ordered): Pamela, J, Ongena, J and JET EFDA Collaborators (... E.R. Solano, ...)

TITLE: Overview of JET results

REF. JOURNAL/BOOK: Nucl. Fusion 45 (2005) S63–S85

KEY:R

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Publications

(Key: L = complete book, BC = book chapter, A = article, R = "review", E = editor)

AUTHORS (ordered): J. Sánchez, M. Acedo, ..., E. Rodríguez-Solano, ...

TITLE: Overview of TJ-II experiments

REF. JOURNAL/BOOK: Nucl. Fusion 47 (2007) S677-S685

KEY:R

AUTHORS (ordered): R.J. Jayakumar, M.A. Austin, C.M. Greenfield, N.C. Hawkes, J.E. Kinsey, L.L. Lao, P.B. Parks, E.R. Solano and T.S. Taylor

TITLE: Formation, sustainment and characteristics of current hole plasmas in DIII-D discharges

REF. JOURNAL/BOOK: Nucl. Fusion 48 (2008) 015004

KEY:A

AUTHORS (ordered): M.N.A. Beurskens, G. Arnoux, A.S. Brezinsek, C.D. Challis, P.C. de Vries, C. Giroud, A. Huber, S. Jachmich, K. McCormick, R.A. Pitts, F.G. Rimini, A. Alfier, E. de la Luna, W. Fundamenski, S. Gerasimov, E. Giovannozzi, E. Joffrin, M. Kempenaars, X. Litaudon, T. Loarer, P. Lomas, J. Mailloux, R. Pasqualotto, V. Pericoli-Ridolfini, R. Pugno, E. Rachlew, S. Saarelma, E. Solano, M. Walsh, L. Zabeo, K.-D. Zastrow and JET-EFDA Contributors

TITLE: Pedestal and ELM response to impurity seeding in JET advanced scenario plasmas

REF. JOURNAL/BOOK: Nucl. Fusion 48 (2008) 095004

KEY:A

AUTHORS (ordered): Emilia R. Solano, S. Jachmich, F. Villone, N. Hawkes, Y. Corre, B. Alper, A. Loarte, R.A. Pitts, K. Guenther, A. Korotkov, M. Stamp, P. Andrew, J. Conboy, T. Bolzonella, M. Kempenaars, A. Cenedese, E. Rachlew and JET EFDA contributors

TITLE: ELMs and strike point movements

REF. JOURNAL/BOOK: Nucl. Fusion 48 (2008)065005

KEY:A

AUTHORS (ordered): White, R; Solano, E. R. Hazeltine, R. D.

TITLE: Variational coordinate transformation in plasma physics

REF. JOURNAL/BOOK: Physics of Plasmas Volume: 16 Issue: 11 (2009)

KEY:A

AUTHORS (ordered): Pitts, RA; Arnoux, G; Beurskens, M; et al.

TITLE: The impact of large ELMS on JET

REF. JOURNAL/BOOK: Jour. Nuc.Materials Volume: 390-91 Pages: 755- 759 (2009)

KEY:A

AUTHORS (ordered): F. Romanelli and R. Kamendje on behalf of JET-EFDA contributors ... E. R. Solano ...

TITLE: Overview of JET results

REF. JOURNAL/BOOK: Nucl. Fusion 49 No 10 (October 2009) 104006 (10pp)

KEY:A

<http://dx.doi.org/10.1088/0029-5515/49/10/104006>

AUTHORS (ordered): J Sánchez ... E. R. Solano

TITLE: "Confinement transitions in TJ-II under Li-coated wall conditions"

<http://dx.doi.org/10.1088/0029-5515/49/10/104018>

REF. JOURNAL/BOOK: Nucl. Fusion 49 No 10 (October 2009) 104018

KEY:A

AUTHORS (ordered): M N A Beurskens, T H Osborne, L D Horton, L Frassinetti, R Groebner, A Leonard, P Lomas, I Nunes, S Saarelma, P B Snyder, I Balboa, B Bray, K Crombé, J Flanagan, C Giroud, E Giovannozzi, M Kempenaars, N Kohen, A Loarte, J Lönnroth, E de la Luna, G Maddison, C Maggi, D McDonald, G McKee, R Pasqualotto, G Saibene, R Sartori, E R. Solano, W Suttrop, E Wolfrum, M Walsh, Z Yan, L Zabeo, D Zarzoso and JET-EFDA contributors

TITLE: "Pedestal width and ELM size identity studies in JET and DIII-D; implications for ITER"

REF. JOURNAL/BOOK: Plasma Phys. Control. Fusion 51 124051 (2009)

KEY:A

<http://dx.doi.org/10.1088/0741-3335/51/12/124051>

Publications

(Key: L = complete book, BC = book chapter, A = article, R = "review", E = editor)

-
- AUTHORS (ordered):* Emilia R. Solano et al.
TITLE: "Observation of Confined Current Ribbon in JET Plasmas"
REF. JOURNAL/BOOK: Phys. Rev. Lett. 104, 185003 (2010) KEY:A
<http://prl.aps.org/abstract/PRL/v104/i18/e185003>
-
- AUTHORS (ordered):* S. Zoletnik, et al.,
TITLE: "Summary of the Workshop on Electric Fields, Turbulence and Self-organization in Magnetized Plasmas (EFTSOMP) 2009: 6–7 July 2009, Sofia, Bulgaria"
REF. JOURNAL/BOOK: Nucl. Fusion 50 047001 (2010) KEY:A
<http://dx.doi.org/10.1088/0029-5515/50/4/047001>
-
- AUTHORS (ordered):* Barrera, L., E. de la Luna, et al.
TITLE: "Inboard and outboard electron temperature profile measurements in JET using ECE diagnostics."
REF. JOURNAL/BOOK: Plasma Physics and Controlled Fusion 52(8) (2010) KEY:A
<http://dx.doi.org/10.1088/0741-3335/52/8/085010>
-
- AUTHORS (ordered):* Zarzoso, D., M. N. A. Beurskens, et al.
TITLE: "ELM size analysis in JET hybrid plasmas."
REF. JOURNAL/BOOK: Nuclear Fusion 51(11) 112001 (2011) KEY:A
<http://dx.doi.org/10.1088/0029-5515/51/11/112001>
-
- AUTHORS (ordered):* Zaitsev, F. S., D. P. Kostomarov, et al.
TITLE: "Analyses of substantially different plasma current densities and safety factors reconstructed from magnetic diagnostics data."
REF. JOURNAL/BOOK: Nuclear Fusion 51(10) 103044 (2011) KEY:A
<http://dx.doi.org/10.1088/0029-5515/51/10/103044>
-
- AUTHORS (ordered):* Sanchez, J., M. Acedo, et al.
TITLE: "Overview of TJ-II experiments."
REF. JOURNAL/BOOK: Nuclear Fusion 51(9) 094022 (2011) KEY:R
<http://dx.doi.org/10.1088/0029-5515/51/9/094022>
-
- AUTHORS (ordered):* F. Romanelli, M. Laxåback on behalf of the JET EFDA Contributors
TITLE: "Overview of JET results."
REF. JOURNAL/BOOK: Nuclear Fusion 51(9) 094008 (2011) KEY:R
<http://dx.doi.org/10.1088/0029-5515/51/9/094008>
-
- AUTHORS (ordered):* ER Solano, RD Hazeltine
TITLE: Magnetic Phase transitions in Plasmas and Transport Barriers
REF. JOURNAL/BOOK: Nucl. Fusion 52 114017 (2012) KEY:A
<http://dx.doi.org/10.1088/0029-5515/52/11/114017>
-
- AUTHORS (ordered):* J Sánchez, D Alegre, A Alonso, J Alonso, P Álvarez, J...,E.R. Solano,...
TITLE: Dynamics of flows and confinement in the TJ-II stellarator
REF. JOURNAL/BOOK: Nuclear Fusion 53 (10), 104016 (2013) KEY:R
-

Publications

(Key: L = complete book, BC = book chapter, A = article, R = "review", E = editor)

AUTHORS (ordered): MP Gryaznevich, YQ Liu, TC Hender, DF Howell, M Beurskens, ...,E.R. Solano,...

TITLE: Determination of plasma stability using Resonant Field Amplification in JET

REF. JOURNAL/BOOK: Nuclear Fusion 52 (8), 083018 (2012)

KEY:A

AUTHORS (ordered): F. Romanelli,...,E.R. Solano,...

TITLE: Overview of the JET results with the ITER-like wall

REF. JOURNAL/BOOK: Nuclear Fusion 53 (10), 104016 (2013)

http://iopscience.iop.org/0029-5515/53/10/104002/pdf/0029-5515_53_10_104002.pdf

KEY:R

Plus various internal reports: Fusion Research Center (Univ. of Texas), JET and EFDA-JET. As member of the JET research team, there are hundreds of journal publications every year since 1999 that include the teams as co-authors, without specifically mentioning my name.

Participation in publicly funded research projects

Project title: JET-EP

As Scientific Assistant of the JET EFDA Leader, I coordinated the writing of the JET-EP proposal, and led the design of a long term physics programme, coordinating the work of many Task Force Leaders and JET researchers.

Contract type:

Financed by: EFDA

Parties: European Fusion Associations

Duration, from: 2000 to: 2003

Principal Investigator: J. Pamela

Number of researchers: ~100

Total budget: ~€35,000,000

Project title: University Spherical Tokamak (USTX) design proposal

I chose the poloidal field coils, and carried out electromagnetic calculations required for coil design and plasma control. Predictive equilibria were generated with EFIT throughout the plasma pulse, and MHD stability analysed at various critical stages.

Financed by: Department of Energy, USA

Parties: University of Texas at Austin, Oak Ridge National Laboratory, University of Washington at Seattle

Duration, from: 1994 to: 1995

Principal Investigator: A. J. Wootton

Number of researchers: ~20

Total budget: \$600,000

Project title: TEXT-Upgrade

D design of a divertor for TEXT. I adapted and used a filament code with an iron core, from Hutch Neilson, to scope and design divertor coils for TEXT. I carried out various electromagnetic calculations required for coil design and power supply specification (mutual inductances, insulation requirements, resistance,...), and corrected earlier designs.

The EFIT code from Lang Lao was adapted to account for the effect of an unsaturated iron core. It was found that the original earlier tokamak designs had failed to account for the de-stabilising influence of the iron on plasma vertical position.

Financed by: Department of Energy, USA

Parties: University of Texas at Austin, Academia Sinica, Hefei Plasma Physics Institute (China)

Duration, from: 1987 to: 1995

Principal Investigator: A. J. Wootton, Project Manager : P. H. Edmonds

Number of researchers: ~100

Total budget: \$6,000,000

Stays in Foreign Centres
(continuous stays of over 1 month)

KEY: D = doctorate, P = postdoctoral, G = guest, C = contract, O = other (specify).

Centre: Fusion Energy Division, Oak Ridge National Laboratory
Location: Austin Country: EEUU Dates: 3/85-3/86 Number of weeks: 56
Subject: calculation of neoclassical transport coefficients for the TJ-II fusion research device
Key: D

Centre: Fusion Research Center, Univ. Texas
Location: Austin Country: EEUU Dates: 5/87-6/96 Number of weeks: 476
Subject: design of theTEXT-Upgrade tokamak, studies of equilibrium, stability and control of plasma, studies on neoclassical transport in tokamaks.
Key: C

Centre: Max-Planck-Institut für PlasmaPhysik,
Location: Garching Country: Germany Dates: 5/97-11/98 Number of weeks: 60
Subject: study of edge plasmas for ITER and calculation of neoclassical transport for W7AS
Key: G

Centre: JET
Location: Culham Country: UK Dates: 2/99-12/2002 Number of weeks: 196
Subject: Scientific assistance to JET director.
Key: O, "EFDA seconded staff"

Centre: JET
Location: Culham Country: UK Dates: 02/2003-03/2003 Number of weeks: 8
Subject: experimental study of ELMs and current holes in JET
Key: O "EFDA seconded staff"

Centre: JET
Location: Culham Country: UK Dates: 01/2004-02/2004 Number of weeks: 6
Subject: experimental study of ELMs and current holes in JET
Key: O "EFDA seconded staff"

Centre: General Atomics
Location: San Diego Country: USA Dates: 7/2004-8/2004 Number of weeks: 2
Subject: experimental study of current holes in DIII-D.
Key: O "Collaborator"

Centre: JET
Location: Culham Country: UK Dates: 10/2005-09/2006 Number of weeks: 50
Subject: improvement of equilibrium reconstruction at JET, ELM studies, transport barrier studies
Key: O "EFDA seconded staff" and "JOC seconded staff"

Centre: ANU
Location: Canberra Country: Australia Dates: 10/2006-12/2006 Number of weeks: 11
Subject: study of criticality theory with R Dewar and R Ball.
Key: G

Stays in Foreign Centres
(continuous stays of over 1 month)

KEY: D = doctorate, P = postdoctoral, G = guest, C = contract, O = other (specify).

Centre: Univ. Of Texas
Location: Austin Country: Texas Dates: 04/2007-05/2007 Number of weeks: 4
Subject: study of criticality theory and Grad-Shafranov equation with Richard Hazeltine. Presentation of JET and theory results.
Key: O Collaborator

Centre: General Atomics
Location: San Diego Country: USA Dates: 5/2007-6/2007 Number of weeks: 4
Subject: presentation of JETstrike point jumps and of theory results, collaboration on EFIT.
Key: O "Collaborator"

Centre: JET
Location: Culham Country: UK Dates: 07/2007-04/2010 Number of weeks: 139
Subject: improvement of equilibrium reconstruction at JET, ELM studies, transport barrier studies
Key: O "EFDA seconded staff" and "JOC seconded staff" (50/50)

Centre: Univ. Of Texas
Location: Austin Country: Texas Dates: 02/2008-03/2008 Number of weeks: 8
Subject: study of criticality theory and plasma phase transitions with Richard Hazeltine, Prashant Valanju, Swadesh Mahajan.
Key: O Collaborator

Centre: Univ. Of Texas
Location: Austin Country: Texas Dates: 12/2010-12/2010 Number of weeks: 4
Subject: study of criticality theory and plasma phase transitions with Richard Hazeltine, Prashant Valanju, Swadesh Mahajan.
Key: O Collaborator

Centre: JET
Location: Culham Country: UK Dates: 04/2010-01/04/2010 Number of weeks: 12
Subject: experimental studies of ELMs and pedestal
Key: O "EFDA seconded staff", Scientific Coordinator, Diagnostic Coordinator, equilibrium, ELM and MHD expertise.

Centre: General Atomics
Location: San Diego Country: USA Dates: 01/2011-02/2011 Number of weeks: 8
Subject: comparison of Outer Mode and Edge Harmonic Oscillation, with K. Burrell
Key: O "Collaborator"

Centre: JET
Location: Culham Country: UK Dates: 09/2011-29/06/2012 Number of weeks: 40
Subject: experimental studies of ELMs and pedestal
Key: O "EFDA seconded staff", Scientific Coordinator, Diagnostic Coordinator, equilibrium, ELM and MHD expertise.

Centre: Physics Department and Mathematics Department, Oxford University
Location: Oxford Country: UK Dates: 07/2012-12/2012 Number of weeks: 24
Subject: theoretical studies of pedestal MHD
Key: G

Centre: JET
Location: Culham Country: UK Dates: 18/03/2013-present Number of weeks: > 40
Subject: Responsible for Diagnostics for Campaign in JET Close Support Unit
Key: O Seconded to JET CSU

Presentations at International Meetings

Authors: G. Li, W. Zhu, P. H. Edmonds, E. R. Solano
Title: Poloidal field electromagnetic engineering design for the TEXT upgrade
Type of presentation: Poster
Meeting: IEEE International Conference on Plasma Science

Publication: Proc. of 1989 IEEE International Conference on Plasma Science, p.163-4

Place: Buffalo, New York, USA

Dates: 1989

Authors: E. R. Solano, R. D. Hazeltine
Title: X-point effect on neoclassical kinetic theory ,
Meeting: 20th EPS Conference on Controlled Fusion and Plasma Physics

Publication: Proceedings of the 20th EPS Conference on Controlled Fusion and Plasma Physics, Contributed Papers, IV-1363, July 1993

Place: Lisbon, Portugal

Dates: July 1993

Authors: William L. Rowan, Roger D. Bengtson, X. Bonnin, K.W. Gentle, P.H. Edmonds, P.D. Hurwitz, P.E. Phillips, K. Schroder, E.R. Solano, D.J. Storek, and J.R. Uglum
Title: Particle and Energy Balance in Diverted Plasmas in TEXT-U
Type of presentation: Poster
Meeting: 21st EPS Conference on Controlled Fusion and Plasma Physics
Publication: Proceedings of the 21st European Conference on Controlled Fusion and Plasma Physics, June 1994

Place: Montpellier, France

Dates: June 1994

Authors: E. R. Solano, R.D. Bengtson, X. Bonnin, et. al.
Title: Diverted discharges in TEXT-Upgrade with Electron Cyclotron Heating
Type of presentation: Poster
Meeting: 1994 International Conference on Plasma Physics, Joint Conference of the 10th Kiev International Conference on Plasma Theory, 10th International Congress on Waves and Instabilities in Plasmas
Publication: Proc. of the 1994 International Conference on Plasma Physics, Brazil, INPE, 1994. p.369-72 vol.1

Place: Foz Do Iguacu, Brazil

Dates: 31 Oct-4 Nov 1994

Authors: A.J. Wootton, R.V. Bravenec, D. Brower, G. Cima, K. Connor, T. Crowley, P. Edmonds, R. Durst, R. Fonck, A. Fujisawa, R. Gandy, K. Gentle, G. Geruzzi, G. Hallock, J. Heard, P. Hurwitz, J. Jagger, Y. Jiang, Y. Karzhavin, S. McCool, W. Miner, A. Ouroua, D. Pavlovsky, E. Powers, P. Phillips, B. Richards, D. Roberts, D. Ross, W. Rowan, P. Schoch, D. Sing, E. Solano, R. Steimle, D. Terry, J. Uglum, C. Watts, D. Winslow, B. Ahand, and S.-B. Zheng
Title: Confinement Studies in TEXT
Type of presentation: Poster
Meeting: 22nd European Conference on Controlled Fusion and Plasma Physics
Publication: Proceedings of the 22nd European Conference on Controlled Fusion and Plasma Physics

Place: Bournemouth, UK

Dates: July 1995

Authors: Emilia R. Solano, M. Taguchi, H. Maassberg, F.-P. Penningsfeld and W7-AS team
Title: Momentum conservation and friction effects on neoclassical flows in stellarators
Type of presentation: Poster
Meeting: 25th EPS Conference on Controlled Fusion and Plasma Physics
Publication: Proc .of 25th EPS Conference on Controlled Fusion and Plasma Physics, Vol. 22C, 1718-1725

Place: Prague, Czech Republic

Dates: June 1998

Presentations at International Meetings

Authors: E. R. Solano

Title: Bifurcation in toroidal plasmas

Type of presentation: Poster

Meeting: 25th EPS Conference on Controlled Fusion and Plasma Physics,

Publication: Proc. of 25th EPS Conference on Controlled Fusion and Plasma Physics, PD04PR, p.2177

Place: Prague, Czech Republic

Dates: June 1998

Authors: E. R. Solano

Title: Structural Stability of Grad-Shafranov and Transport Equations: L to H transitions and ELM's

Type of presentation: Poster

Meeting: 7th IAEA Technical Committee Meeting on H-mode and Transport Barrier Physics

Place: Oxford, UK

Dates: September, 1999

Authors: E. R. Solano

Title: Structural Stability of Tokamak Equations: confinement transitions

Type of presentation: Poster

Meeting: 26th EPS Conference on Controlled Fusion and Plasma Physics

Publication: Proc. of 26th EPS Conference on Controlled Fusion and Plasma Physics, P5.001,ECA Vol.23J, p.1817 - 1820

Place: Maastricht, the Netherlands

Dates: June, 1999

Authors: E. R. Solano, F. Villone, P. Andrew, et al.,

Title: Structural stability of the Grad-Shafranov equation: transport barriers and fragile equilibria

Tipo de participación: Oral

Meeting: 9th European Fusion Theory Conference

Publication: abstract en http://www.risoe.dk/ofd/abstracts_fusion/orals/solano.pdf

Place: Elsinor, Denmark

Dates: October 2001

Authors: G. Calabro, R. Albanese, F. Crisanti, E. R. Solano

Title: JET plasma equilibrium reconstruction using magnetic and MSE measurements, including the effects of the iron core

Type of presentation: Poster

Meeting: 29th European Physical Society Conference on Plasma Physics and Controlled Fusion

Publication: Proc. of 29th European Physical Society Conference on Plasma Physics and Controlled Fusion, ECA Vol.26B, P-1.031

Place: Montreaux, Suiza

Dates: June 2002

Authors: E. R. Solano

Title: Structural stability of the Grad-Shafranov equation: transport barriers and fragile equilibria

Type of presentation: Poster

Meeting: Joint Varenna-Lausanne International Workshop on Theory of Fusion Plasmas

Publication: Theory of Fusion Plasmas, ISPP-20, Societa Italiana di Fisica, 2002

Place: Varenna, Italia

Dates: August 2002

Authors: E. R. Solano, F. Villone, P. Andrew, et al.,

Title: ELMs plasma current loss and strike point movements

Type of presentation: Oral

Meeting: 44th Annual Meeting of The American Physical Society, Division of Plasma Physics

Publication: abstract in Bulletin of The American Physical Society, 47, 326 (2002)

Place: Orlando, FL, EEUU

Dates: November 2002

Presentations at International Meetings

Authors: E. R. Solano, F. Villone, N. Hawkes et al.

Title: Current loss and strike point movement during ELMs in JET

Type of presentation: Poster

Meeting: 30th European Physical Society Conference on Controlled Fusion and Plasma Physics

Publication: Proc. of 30th European Physical Society Conference on Controlled Fusion and Plasma Physics, P1.106

http://epsppd.epfl.ch/StPetersburg/PDF/P1_106.PDF

Place: St Petersburg, Rusia

Dates: July 2003

Authors: E. R. Solano, F. Villone

Title: Current loss at ELMs: evidence of equilibrium criticality?

Type of presentation: Poster

Meeting: 10th European Fusion Theory Conference

Publication: <http://www.hut.fi/Units/AES/eftc10/posters/p2-26.pdf>

Place: Helsinki, Finlandia

Dates: September 2003

Authors: Emilia R. Solano, S. Jachmich, F. Villone, N. Hawkes, Y. Corre, R. A. Pitts, A. Loarte, B. Alper, K. Guenther, A. Korotkov, M. Stamp, P. Andrew, S.A. Arshad, J. Conboy, T. Bolzonella, E. Rachlew, M. Kempenaars, A. Cenedese, D. Testa, G. Matthews and JET EFDA contributors

Title: ELMs and Strike Point Jumps

Type of presentation: Poster

Meeting: 16th International Conference on Plasma Surface Interactions in Controlled Fusion Devices

Publication: published in Journal of Nuclear Materials, Volumes 337-339, 1 March 2005, Pages 747-750

Place: Portland, Maine, EEUU

Dates: 24-28 May 2004

Authors: Emilia R. Solano, S. Jachmich, F. Villone, N. Hawkes, Y. Corre, A. Loarte, R.A. Pitts, K. Guenther, A. Korotkov, M. Stamp, P. Andrew, J. Conboy, A. Cenedese, M. Kempenaars, T. Bolzonell, E. Rachlew, G.F. Matthews, and JET EFDA contributors

Title: ELMs, Strike Point Jumps and SOL currents

Type of presentation: Poster

Meeting: 20th IAEA Fusion Energy Conference

Publication: Proc. of the 20th IAEA Fusion Energy Conference, IAEA-CN-116/EX/P1-3.

http://www-pub.iaea.org/MTCD/Meetings/PDFplus/fusion-20-preprints/EX_P1-3.pdf

Place: Vilamoura, Portugal

Dates: 1-6 Noviembre 2004

Authors: Emilia R. Solano, Phillip H. Edmonds, Yann Corre, Philip Andrew, Stefan Jachmich and JET EFDA contributors.

Title: ELM calorimetry in JET

Type of presentation: Poster

Meeting: 32nd European Physical Society Plasma Physics Conference

Publication: Proceedings on line, http://eps2005.ciemat.es/papers/pdf/P2_006.pdf

Place: Tarragona, España

Dates: 27 June – 1 July 2005

Authors: L.C. Appel, G.T.A. Huysmans, L.L. Lao, P.J. McCarthy, D.G. Muir, E.R. Solano, J. Storrs, D. Taylor, W. Zwingmann¹, contributors to the EFDA Integrated Tokamak Modelling (ITM) Task Force and JET-EFDA contributors.

Title: A Unified Approach to Equilibrium Reconstruction

Type of presentation: Poster

Meeting: 33rd EPS Conference on Plasma Phys. Rome, 19 - 23 June 2006 ECA Vol.30I, P-2.184 (2006)

Publication: Proceedings on line, http://epsppd.epfl.ch/Roma/pdf/P2_184.pdf

Place: Rome, Italy

Dates: 19 - 23 June 2006

Presentations at International Meetings

Authors: G.T.A. Huysmans, L. Appel, A. Bécoulet, B. Guillerminet, C. Konz, H. Leggate, J.B. Lister, H. Lutjens, P.J. Mc Carthy, S. Yu. Medvedev M.F.F. Nave, O. Sauter, E.R. Solano, P. Strand, E. Strumberger, L. Villard, W. Zwingmann and the contributors to the EFDA Integrated Tokamak Modelling Task Force

Title: Integrated Tokamak Modeling Taskforce: The Integrated Modeling Project on Equilibrium and Linear MHD Stability.

Type of presentation: Poster

Meeting: 33rd EPS Conference on Plasma Phys. Rome, 19 - 23 June 2006 ECA Vol.30I, P-5.152 (2006)

Publication: Proceedings on line, http://epsppd.epfl.ch/Roma/pdf/P5_152.pdf

Place: Rome, Italy

Dates: 19 - 23 June 2006

Authors: E. de la Luna, L. Barrera, L. Figini, A. Alfier, Y. Andrew, M. Beurskens, D. Farina, E. Giovanozzi, M. Kempenaars, A. Loarte, P. Lomas, C. Mckeen, R. Pasqualotto, G. Saibene, R. Sartori, E. R. Solano and JET-EFDA contributors

Title: Measurements of inboard-outboard asymmetry of pedestal temperature collapse during Type I ELMs in JET.

Type of presentation: Poster

Meeting: 34th EPS Conference on Plasma Phys. Warsaw, 2 - 6 July 2007 ECA Vol.31F, P-5.085 (2007)

Publication: Proceedings on line, http://epsppd.epfl.ch/Warsaw/pdf/P5_085.pdf

Place: Warsaw, Poland

Dates: 2 - 6 July 2007

Authors: M.N.A. Beurskens, G. Arnoux, P. de Vries, C. Giroud, P. Lomas, F.G. Rimini, A.S. Brezinsek, C. Challis, E. de la Luna, W. Fundamenski, S. Gerasimov, E. Giovannozzi, E. Joffrin, A. Huber, S. Jachmich, X. Litaudon, T. Loarer, J. Mailloux, K. McCormick, V. Pericoli-Ridolfini, R.A. Pitts, R. Pugno, E. Rachlew, E.

Title: Edge pedestal characterisation in high triangularity Advanced Tokamak scenarios with impurity seeding at JET.

Type of presentation: Poster

Meeting: 34th EPS Conference on Plasma Phys. Warsaw, 2 - 6 July 2007 ECA Vol.31F, P-5.085 (2007)

Publication: Proceedings on line, http://epsppd.epfl.ch/Warsaw/pdf/P1_163.pdf

Place: Warsaw, Poland

Dates: 2 - 6 July 2007

Authors: M.K.Zedda, M. Camplani, B.Cannas, A.Fanni, P.Sonato, E.Solano, JET-EFDA contributors.

Title: Dynamic behaviour of type I Edge Localized Modes in the JET

Type of presentation: Poster

Meeting: 35th EPS Conference on Plasma Phys. Hersonissos, 9 - 13 June 2008 ECA Vol.32D, P-4.070 (2008)

Publication: Proceedings on line, http://epsppd.epfl.ch/Warsaw/pdf/P1_163.pdf

Place: Hersonissos, Greece

Dates: 9 - 13 June 2008

Title: "3D MHD Equilibrium Calculations for Tokamaks with the HINT2 Code"

Authors: C.Wiegmann, Y.Suzuki, J.Geiger, E.R.Solano, Y.Liang, Y.Sun, D.Reiter, R.C.Wolf

Meeting: 36th EPS Conference on Plasma Phys. Sofia, June 29 - July 3, 2009 ECA Vol.33E, P-1.132 (2009)

Type of presentation: Poster and Paper

Publication: Proceedings on line, http://epsppd.epfl.ch/Sofia/pdf/P1_132.pdf

Place: Sofia, Bulgaria

Dates June 29 - July 3, 2009

Authors: P. Belo, V. Parail, E. R. Solano, G. Corrigan, C. Giroud, J. Spence, P. J. Lomas and JET EFDA contributors

Title: "Effect of the initial ELM on impurity transport in hot ion H mode plasma"

Meeting: 36th EPS Conference on Plasma Phys. Sofia, June 29 - July 3, 2009 ECA Vol.33E, P-2.165 (2009)

Type of presentation: Poster and Paper

Publication: Proceedings on line, http://epsppd.epfl.ch/Sofia/pdf/P2_165.pdf

Place: Sofia, Bulgaria

Dates June 29 - July 3, 2009

Presentations at International Meetings

Authors: E.R. Solano, P.J. Lomas, B. Alper, G. Xu, Y. Andrew, G. Arnoux, A. Boboc, L. Barrera, P. Belo, M.N.A. Beurskens, M. Brix, K. Crombe, E. de la Luna, S. Devaux, T. Eich, S. Gerasimov, C. Giroud, D. Harting, D. Howell, A. Huber, G. Kocsis, A. Korotkov, A. Lopez-Fraguas, M. F. F. Nave, C. Pérez Von Thun, E. Rachlew, F. Rimini, S. Saarelma, A. Sirinelli, L. Zabeo, D. Zarzoso and JET EFDA contributors.

Title: "High Temperature Pedestals in JET and confined current filaments"

Meeting: 36th EPS Conference on Plasma Phys. Sofia, June 29 - July 3, 2009 ECA Vol.33E, O-2.020 (2009)

Type of presentation: Oral and Paper

Publication: Proceedings on line http://epsppd.epfl.ch/Sofia/pdf/O2_020.pdf

Place: Sofia, Bulgaria

Dates June 29 - July 3, 2009

Authors: E. R. Solano,, P.J. Lomas , B. Alper , G. Arnoux , A. Boboc , L. Barrera , P. Belo , M.N.A. Beurskens , M. Brix , K. Crombe , E de la Luna , S. Devaux , T. Eich , S. Gerasimov , C. Giroud , D. Harting , D. Howell , G. Kocsis , H. R. Koslowski ,Y. Liang , A. López-Fraguas , M.F.F. Nave , E. Nardon , C. Pérez. von Thun ,, S.D. Pinches , E. Rachlew , F. Rimini , S. Saarelma , A. Sirinelli , H. Thomsen , G.S. Xu , L. Zabeo , D. Zarzoso and JET EFDA contributors.

Title: Observation of Confined Current Structures in JET High Temperature Pedestals and Transient ELM Suppression

Type of presentation: Poster

Meeting: 23rd IAEA Fusion Energy Conference.

Publication: IAEA web http://www-pub.iaea.org/mtcd/meetings/PDFplus/2010/cn180/cn180_papers/exs_p3-05.pdf

Place: : Daejeon, Korea

Dates: 11-16 October 2010

Authors: E. de la Luna, G. Saibene ,H. Thomsen, P. J. Lomas, D. C. McDonald, T. Eich, M. Beurskens, A. Boboc, C. Giroud, S. Devaux, L. Garzotti, J. Lonroth, I. Nunes, V. Parai, R. Sartori,, E. R. Solano, I. Voitsekhovitch and JET-EFDA contributors

Título: Effect of ELM mitigation on confinement and divertor heat loads in JET

Type of presentation: Oral

Meeting: 23rd IAEA Fusion Energy Conference.

Publication: IAEA web http://www-pub.iaea.org/mtcd/meetings/PDFplus/2010/cn180/cn180_papers/exc_8-4.pdf

Place: Daejeon, Korea

Dates: 11-16 October 2010

Authors: E. R. Solano

Title: Magnetic phase transitions in plasmas and transport barriers

Type of presentation: Oral

Meeting: 39th EPS Conference & 16th Int. Congress on Plasma Physics

Publication: <http://ocs.ciemat.es/EPSCIPP2012ABS/pdf/O4.115.pdf>

Place: : Stockholm, Sweden

Dates: 2-6 July 2012

Authors: C Maggi, G Calabro, E Delabie, ... E. R. Solano...

Title: The H-mode threshold in JET with the ITER-like wall

Type of presentation: Oral

Meeting: 39th European Physical Society Conference on Plasma Physics

Publication: <http://ocs.ciemat.es/EPSCIPP2012ABS/pdf/O3.108.pdf>

Place: : Stockholm, Sweden

Dates: 2-6 July 2012

<http://ocs.ciemat.es/epsicpp2012pap/pdf/O3.108.pdf>

Authors: Maggi, C.F., Delabie, E., Hawkes,, ... E. R. Solano...

Title: Experimental study of H-L transitions in JET

Type of presentation: Poster

Meeting: 39th European Physical Society Conference on Plasma Physics

Publication: <http://ocs.ciemat.es/EPSCIPP2012ABS/pdf/P2.168.pdf>

Place: Aalto, Finland, Sweden

Dates: 1-5 July 2013

Presentations at International Meetings

Authors: Emilia R. Solano, N. Vianello, P. Buratti, et al
Title: M-mode: axi-symmetric magnetic oscillation and ELM-less H-mode in JET
Type of presentation: Poster
Meeting: 40th European Physical Society Conference on Plasma Physics
Publication: <http://ocs.ciemat.es/EPS2013PAP/pdf/P4.111.pdf>
Place: Aalto, Finland Dates: 1-5 July 2013

Authors: Emilia R. Solano, R. D. Hazeltine
Title: Magnetic Phase Transitions & Confinement Regimes
Type of presentation: Invited Plenary
Meeting: 15th European Fusion Theory Meeting, <http://www.eftc2013.org.uk/>
Publication: http://www-fusion.ciemat.es/fusionwiki/images/0/05/EmiliaSolano_Magnetisation_EFTC_2013.pdf
Place: Oxford, United Kingdom Dates: 23-26/09/2013

And about another 10-20 posters, presented at various meetings in the USA: APS-DPP, IAEA H-mode Workshop, Sherwood Theory Meeting, Transport Task Force, etc., not published.

Participation in international committees, experience in R&D organisation

Committee Name: Science Subcommittee of the Consultative Committee for Fusion Energy (FEAD), advisory committee to the DoE in the USA.

Sponsor: Department of Energy, USA

Subject: strategy for the magnetic confinement fusion programme in the USA.

Report: "A Restructured Fusion Energy Sciences Program", for M. A. Krebs, (then director of the Office of Energy Research, DoE, USA.)

Dates: December 95- June 96

Committee Name: Alternate Concepts panel of the Science Subcommittee (see above)

Sponsor: Department of Energy, EEUU

Subject: strategy for alternate concepts in the magnetic confinement fusion programme in the USA.

Informe: "ALTERNATIVE CONCEPTS, A Report to the Fusion Energy Sciences Advisory Committee", DOE/ER-0690

Dates: March 96- June 96

Committee Name: EPS Programme Committee for 31st EPS Conference on Controlled Fusion and Plasma Physics

Sponsor: European Physical Society

Subject: Plasma Physics European Conference, London 2004. Chair of Magnetic Confinement Group.

Dates: 2003-2004

Committee Name: Editors of Plasma Physics and Controlled Fusion

Sponsor: Institute of Physics

Subject: Plasma Physics

Dates: 2005-2008

Committee Name: Board of Plasma Physics Division of European Physical Society, Elected

Sponsor: European Physical Society

Subject: Plasma Physics

Dates: 2012-2016

Participation in international committees, experience in R&D organisation

Experience in R+D organization

Organizing R+D meetings seminars, workshops, etc.

Title: chair of the Magnetic Confinement group of the EPS Programme Committee for the 30th EPS Conference on Controlled Fusion and Plasma Physics.

Type of Activity: scientific programme

Scope: Europe

Dates: 2003-2004

Title: JET EFDA Seminars

Type of Activity: Organization of quasi-weekly Seminars

Scope: JET and Europe

Dates: 2000-2002

Title: Local organisation of Meeting of Three Large Tokamak Agreement on International Collaboration

Type of Activity: Organization of international meeting

Scope: Europe, Japan and USA

Dates: 1999

Other relevant qualifications, or clarifications

Other qualifications:

Participation in the "Engineering Design Review of TBR-E", São Paulo, Brasil, December 1991, as specialist in spherical tokamaks.

Member of selection committee for National Undergraduate Fellowship Program in the US, organised by the University Fusion Association and Princeton University Plasma Physics Laboratory in 1994, 1995.

Lecturer of physics problem class for 1st year undergraduate students at Univ. of Texas at Austin, 1996.

Selected by the European Commission Research Directorate General for the reserve list of temporary personnel in controlled thermonuclear fusion, COM/R/A/04/1999, level A8/A5, in January 2001.

JET-EP Physics Programme: during 2000-2002, as part of my job as scientific assistant of the JET EFDA Leader, I coordinated the scientific research activity required to write the proposals for the JET Enhancement Programme. After the proposal was accepted, I co-ordinated the necessary physics studies needed for design specifications, until a project leader and a physics leader were hired to take the projects forward.

Member of the Spanish Physics Royal Society since 2004, (membership number 2069).

Honorary Fellow of The Institute of Physics, United Kingdom, Feb. 2005-2008.

CLARIFICATIONS:

I am known in Spain with my full name, Emilia Rodríguez-Solano Ribeiro, and abroad with abbreviated names, E. R. Solano, or E. Solano.

During my stays in the JET CSU I have virtually no time for physics, evidenced by gaps in my publication record. Generally I chose not to appear as co-author of articles written on behalf of the whole team and presented by J. Pamela (head of JET) (1999-2004).