

ITER PAPERS AND POSTERS

TABLE OF CONTENTS

- IAEA-CN-64/01-1** **"ITER Project: A Physics and Technology Experiment"**
R. Aymar, V. Chuyanov, M. Huguet, R. Parker, Y. Shimomura and the
ITER Joint Central Team and Home Teams
(also IAEA-CN-64/FP-1)
- IAEA-CN-64/F-1** **ITER Physics**
S. Putvinski, R. Aymar, D. Boucher, C. Cheng, J. Connor, G. Cordey,
A. Costley, F. Engelmann, N. Fujisawa, M. Fujiwara, J. Jacquinet,
R. Khayrutdinov, H. Kishimoto, S. Konovalov, A. Kukushkin, B. Kuteev,
V. Lukash, S. Mirnov, D. Moreau, V. Mukhovatov, W. Nevins, F. Perkins,
A. Polevoi, D. Post, M. Rosenbluth, O. Sauter, N. Sauthoff, M. Shimada,
Y. Shimomura, Yu. Sokolov, R. Stambaugh, N. Uckan, M. Wakatani,
J. Wesley, R. Yoshino, K. Young
(also IAEA-CN-64/FP-19)
- IAEA-CN-64/F-2** **ITER Divertor and Pumping and Fuelling Systems Designs**
G. Janeschitz, H.D. Pacher, G. Federici, Y. Igitkhanov, A. Kukushkin,
E. Martin, D. Post, M. Sugihara, R. Tivey, T. Ando, A. Antipenkov,
S. Chiochio, S. Hiroki, P. Ladd, H. Nakamura, R. Parker, K. Schaubel
(also IAEA-CN-64/FP-3)
- IAEA-CN-64/F-3** **Safety Characteristics for ITER**
Y. Shimomura, R. Aymar, H. Bartels, C. Gordon, W. Gulden, D. Holland,
H. Iida, T. Inabe, M. Iseli, A. Kashirski, B. Kolbasov, M. Krivosheev,
K. McCarthy, G. Marbach, S. Morozov, A. Natalizio, D. Petti, S. Piet,
A. Poucet, J. Raeder, Y. Seki, G. Saji, L. Topilski
(also IAEA-CN-64/FP-2)
- IAEA-CN-64/F-4** **ITER Magnets and Plasma Control**
M. Huguet and the ITER Joint Central Team and Home Teams
(also IAEA-CN-64/FP-11)

IAEA-CN-64/F-5

Threshold Power and Energy Confinement for ITER

T. Takizuka, D. Boucher, G. Bracco, T.N. Carlstrom, J.G. Cordey, J.W. Connor, A.N. Chudnovskii, J.C. DeBoo, B. Dorland, Yu.V. Esipchuk, S.J. Fielding, T. Fukuda, R.S. Granetz, M. Greenwald, G.T. Hoang, W. Houlberg, Y. Kamada, O.J.W.F. Kardaun, S.M. Kaye, M. Kikuchi, A. Kus, Y. Martin, T. Matsuda, Y. Miura, O. Naito, Y. Ogawa, J. Ongena, M. Ossipenko, F. Perkins, E. Righi, F. Ryter, D.P. Schissel, J.A. Snipes, U. Stroth, H. Tamai, K. Thomsen, M. Valovic, Alcator C-Mod team, ASDEX team, ASDEX Upgrade team, COMPASS-D team, Doublet III team, DIII-D team, FTU team, JET team, JFT-2M team, JT-60 team, PBX-M team, PDX team, T-10 team, TCV team, TEXTOR team, TFTR team, TORE SUPRA team
(also IAEA-CN-64/FP-20)

IAEA-CN-64/FP-1

"ITER Project: A Physics and Technology Experiment"

R. Aymar, V. Chuyanov, M. Huguet, R. Parker, Y. Shimomura and the ITER Joint Central Team and Home Teams
(also IAEA-CN-64/01-1)

IAEA-CN-64/FP-2

Safety Characteristics for ITER

Y. Shimomura, R. Aymar, H. Bartels, C. Gordon, W. Gulden, D. Holland, H. Iida, T. Inabe, M. Iseli, A. Kashirski, B. Kolbasov, M. Krivosheev, K. McCarthy, G. Marbach, S. Morozov, A. Natalizio, D. Petti, S. Piet, A. Poucet, J. Raeder, Y. Seki, G. Saji, L. Topilski
(also IAEA-CN-64/F-3)

IAEA-CN-64/FP-3

ITER Divertor, and Pumping and Fuelling System Designs

G. Janeschitz, H.D. Pacher, G. Federici, Y. Igitkhanov, A. Kukushkin, E. Martin, D. Post, M. Sugihara, R. Tivey, T. Ando, A. Antipenkov, S. Chiochio, S. Hiroki, P. Ladd, H. Nakamura, R. Parker, K. Schaubel
(also IAEA-CN-64/F-2)

IAEA-CN-64/FP-4

Development of a Full-Size Divertor Cassette Prototype for ITER

M.A. Ulrickson, M. Akiba, P. Chappuis, G. LeMarois, I. Mazul, H.D. Pacher, A. Pizzuto, L. Plöchl, B. Riccardi, M. Roccella, M. Rödiger, J. Schlosser, I. Smid, R. Tivey, G. Vieider, C. Wu

IAEA-CN-64/FP-7

ITER Vessel and Blanket

K. Ioki, A. Cardella, W. Dänner, F. Ellio, Y. Gohar, G. Johnson, K. Koizumi, Y. Kuzmin, D. Lousteau, R. Mattas, K. Mohri, B. Nelson, R. Parker, R. Raffray, Y. Strebkov, K. Shimizu, N. Tachikawa, H. Takatsu, C. Vallone, D. Williamson, M. Yamada

IAEA-CN-64/FP-8

Development of Double-Walled Vacuum Vessel for ITER

K. Koizumi, K. Ioki, Y. Itou, G. Johnson, N. Kanamori, K. Kitamura, Y. Kuzmin, V. Krylov, M. Nakahira, G. Sannazzaro, K. Shimizu, E. Tada, K. Takahashi, Y. Utin

- IAEA-CN-64/FP-9** **The ITER "L-4" Blanket Project**
W. Dänner, P. Batistoni, A. Cardella, M. Ferrari, Y. Gohar, M. Heller,
K. Ioki, G. Kalinin, P. Lorenzetto, R. Mattas, E. Rodgers, R.T. Santoro,
Y. Strebkov, H. Takatsu, F. Tavassoli, C. Vallone, G. Vieider
- IAEA-CN-64/FP-10** **ITER Breeding Blanket and Demo Relevant Blanket Test Program**
Y. Gohar, M. Abdou, R. Aymar, S. Booth, M. Dalle Donne, R. Haange,
T. Hua, V. Kapychev, I. Kirillov, T. Kuroda, K. Mohri, R. Parker,
E. Proust, G. Saji, Y. Strebkov, H. Takatsu, S. Tanaka, L. Wagner
- IAEA-CN-64/FP-11** **ITER Magnets and Plasma Control**
M. Huguet and the ITER Joint Central Team and Home Teams
(also IAEA-CN-64/F-4)
- IAEA-CN-64/FP-12** **The ITER CS Model Coil Project**
R. Jayakumar, T. Ando, W. Beck, D. Bessette, P. Bruzzone, R. Childs,
J. Dalessandro, T. Fujioka, P. Gertsch, C.Y. Gung, D. Gwinn, K. Hamada,
H. Hanawa, J. Harada, L. Hawley, T. Himaya, T. Honda, T. Hrycaj,
T. Isono, T. Ito, T. Kato, K. Kawano, N. Koizumi, N. Martovetsky,
K. Matsui, R. McCool, J. Minervini, N. Mitchell, G. Miyata,
D.B. Montgomery, H. Nakajima, T. Nagashima, M. Nozawa, B. Ohea,
O. Ohsaki, M. Ohta, K. Okuno, M. Oshikiri, A. Ozaki, D. Paganini,
Z. Picc, R. Randall, R. Reed, S. Seki, S. Sekiguchi, S. Shimamoto,
B. Smith, M. Sugimoto, Y. Takahashi, K. Takano, K. Taneda,
A. Terasawa, R. Thome, H. Tsuji, Y. Uno, R. Vieira, H. Wakabayashi,
I. Watanabe, J. Wohlwend, J. Zbasnik
- IAEA-CN-64/FP-13** **The Toroidal Field Model Coil Programme for the ITER Tokamak**
E. Salpietro, G. Bevilacqua, A. Della Corte, P. Libeyre, R.K. Maix,
N. Mitchell, M. Spadoni, B. Turck, A. Ulbricht, G. Zahn
- IAEA-CN-64/FP-14** **Maintenance Concepts for ITER**
R. Haange and the ITER Joint Central Team and Home Teams
- IAEA-CN-64/FP-15** **Development of Remote Maintenance System for ITER Blankets**
E. Tada, S. Kakudate, T. Burgess, S. Fukatsu, R. Haange, R. Hager,
C. Holloway, A. Itoh, N. Kanamori, N. Matsuhira, M. Nakahira, S. Nishio,
K. Obara, K. Oka, K. Shibanuma, A.K. Taguchi, A. Tesini
- IAEA-CN-64/FP-16** **Status of Development of Remote Maintenance of ITER Divertor Cassettes**
D. Maisonnier, A. Antipenkov, J. Blevins, R. Bossu, C. Calvaresi,
G. Cerdan, S. Chiocchio, J.F. Dagenais, C. Damiani, I. Erce, S. Fukatsu,
P. Gaggini, P. Herrero, G. Janeschitz, E. Martin, J. Millard, C. Pascual,
L. Pierazzi, C. Procter, M. Siukko, J. Sheppard, E. Tada, A. Tesini,
A. Timperi, R. Tivey, A. Turner

- IAEA-CN-64/FP-17** **Ion Cyclotron, Electron Cyclotron and Lower Hybrid Heating and Current Drive in ITER**
G. Bosia, F. Elio, M. Makowski, G. Tonon
- IAEA-CN-64/FP-18** **ITER Neutral Beam Injector Design**
R. Hemsworth, E. Alexandrov, M. Barinov, E. Di Pietro, E. Dlougach, J.H. Feist, Y. Fujiwara, M. Hanada, B. Heinemann, T. Inoue, A. Krylov, V. Kulygin, E. Küssel, P. Lotte, P. Massmann, K. Miyamoto, N. Moyamoto, V. Naumov, Y. Ohara, Y. Okumura, J. Pamela, A. Panasenkov, V. Petrov, Shibata, M. Tanii, K. Watanabe, M. Watson
- IAEA-CN-64/FP-19** **ITER Physics**
S. Putvinski, R. Aymar, D. Boucher, C. Cheng, J. Connor, G. Cordey, A. Costley, F. Engelmann, N. Fujisawa, M. Fujiwara, J. Jacquinet, R. Khayrutdinov, H. Kishimoto, S. Konovalov, A. Kukushkin, B. Kuteev, V. Lukash, S. Mirnov, D. Moreau, V. Mukhovatov, W. Nevins, F. Perkins, A. Polevoi, D. Post, M. Rosenbluth, O. Sauter, N. Sauthoff, M. Shimada, Y. Shimomura, Yu. Sokolov, R. Stambaugh, N. Uckan, M. Wakatani, J. Wesley, R. Yoshino, K. Young
(also IAEA-CN-64/F-1)
- IAEA-CN-64/FP-20** **Threshold Power and Energy Confinement for ITER**
T. Takizuka, D. Boucher, G. Bracco, T.N. Carlstrom, J.G. Cordey, J.W. Connor, A.N. Chudnovskii, J.C. DeBoo, B. Dorland, Yu.V. Esipchuk, S.J. Fielding, T. Fukuda, R.S. Granetz, M. Greenwald, G.T. Hoang, W. Houlberg, Y. Kamada, O.J.W.F. Kardaun, S.M. Kaye, M. Kikuchi, A. Kus, Y. Martin, T. Matsuda, Y. Miura, O. Naito, Y. Ogawa, J. Ongena, M. Ossipenko, F. Perkins, E. Righi, F. Ryter, D.P. Schissel, J.A. Snipes, U. Stroth, H. Tamai, K. Thomsen, M. Valovic, Alcator C-Mod team, ASDEX team, ASDEX Upgrade team, COMPASS-D team, Doublet III team, DIII-D team, FTU team, JET team, JFT-2M team, JT-60 team, PBX-M team, PDX team, T-10 team, TCV team, TEXTOR team, TFTR team, TORE SUPRA team
(also IAEA-CN-64/F-5)
- IAEA-CN-64/FP-21** **Validation of 1-D Transport and Sawtooth Models for ITER**
J. W. Connor, M. Alexander, S. E. Attenberger, G. Bateman, D. Boucher, A. N. Chudnovskij, Yu. N. Dnestrovskij, W. Dorland, A. Fukuyama, G. T Hoang, D. Hogeweyj, W.A Houlberg, S.M. Kaye, J. E. Kinsey, J. A. Onings, M. Kotschenreuter, A. H Kritz, V. M Leonov, M. Marinucci, D. R. Ikkelsen, J. Ongena, A. R. Polevoi, F. Romanelli, D. Schissel, P. M. Stubberfield, T. Takizuka, A. Taroni, M. F. Turner, G. Vlad, R. E. Waltz, J. Weiland
- IAEA-CN-64/FP-22** **ITER Scenarios including Non-Inductive Steady-State Operation**
D. Boucher, Y. Barano, B. Fischer, X. Litaudon, D. Moreau, W. Nevins, F. Söldner, I. Voitsekhovitch

- IAEA-CN-64/FP-23** **Energetic Particle Physics Issues for ITER**
 C.Z. Cheng, H.L. Berk, D. Borba, B. Breizman, R. Bundny, R.H. Bulmer, J. Candy, D.S. Darrow, A. Fasoli, E.D. Fredrickson, G.Y. Fu, R.J. Goldston, N. Gorelenkov, G. Huysmans, W. Kerner, H. Kimura, S.V. Konovalov, Y. Kusama, J. Manicham, R. Nazikian, G.H. Neilson, W.M. Nevins, T. Ozeki, L.D. Pearlstein, S. Putvinski, M.H. Redi, F. Romanelli, M.N. Rosenbluth, S. Sharapov, D.A. Spong, K. Tobita, J.W. Van Dam, G. Vlad, R.B. White, K.L. Wong, V. Wong, F. Zonca, S.J. Zweben
- IAEA-CN-64/FP-24** **ITER Operational Limits**
 F.W. Perkins, D. Post, M. Rosenbluth, O. Sauter, K. Borass, D. Campbell, J.G. Cordey, M. Greenwald, T.C. Hender, Y. Kamada, R. LaHaye, A. Mahdavi, A.W. Morris, V. Mertens, J. Neuhauser, T. Taylor, H. R. Wilson, R. Yoshino, H. Zohm
- IAEA-CN-64/FP-25** **Disruption, Vertical Displacement Event and Halo Current Characterization for ITER**
 J. Wesley, N. Fujisawa, O. Gruber, T. Hender, N. Ivanov, S. Jardin, J. Lister, S. Mirnov, F. Perkins, S. Ortolani, S. Putvinski, M. Rosenbluth, N. Sauthoff, T. Taylor, S. Tokud, K. Yamazaki, R. Yoshin
- IAEA-CN-64/FP-26** **Runaway Electrons and Fast Plasma Shutdown**
 M. Rosenbluth, P. Parks, D. Post, S. Putvinski, N. Putvinskaya, H.A. Scott
- IAEA-CN-64/FP-27** **Analysis of the Performance of the ITER Divertor and Analysis of the ITER Tokamak Edge Parameter Database**
 A. Kukushkin, H. D. Pacher, V. Abramov, M. Baelmans, S. Bosch, D. Boucher, B. Braams, D. Coster, Yu. Igitkhanov, H. Itami, G. Janeschitz, D. Knoll, B. Lipschultz, A. Loarte, J. Mandrekas, P. McHugh, J. Neuhauser, T. Osborne, G. Porter, D. Post, V. Pozharov, D. Reiter, M. Rensink, T. Rognlien, R. Schneider, M. Shimada, R. Simonini, W. Stacey, M. Sugihara, A. Taroni, R. Vesey, G. Vlases, F. Wising
- IAEA-CN-64/FP-28** **The ITER Diagnostic System**
 A.E. Costley, K. Ebisawa, G. Janeschitz, L.C. Johnson, S. Kasai, L. de Kock, V. Mukhovatov, D. Orlinski, P.E. Stott, G. Vayakis, C. Walker, S. Yamamoto, K.M. Young, V. Zaveriaev