

# Bibliography

- [Abr72] Abramowitz, M., and Stegun, I.A., “Handbook of Mathematical Functions”. Dover Publications, New York (1972).
- [Alb99a] Albajar, F., Ané, J.M., Bottereau, J.M., Bottiglioni, F., Duchateau, J.L., Hertout, P., Johner, J., Magaud, P., Turck, B., and Zabiego, M., “Design Basis Elements for a Tokamak at  $Q = 5$ /Main Document”. Report DRFC-EPDIM-99-016, Etudes Prospectives DSM-CEA, 1999.
- [Alb99b] Albajar, F., Ané, J.M., Bottereau, J.M., Bottiglioni, F., Duchateau, J.L., Hertout, P., Johner, J., Magaud, P., Turck, B., and Zabiego, M., “Eléments de dimensionnement pour un tokamak à  $Q = 5$ /Annexes”. Report DRFC-EPDIM-99-015, Etudes Prospectives DSM-CEA, 1999.
- [Alb00] Albajar, F., Johner, J., and Dies, J., “Influencia de una descripción precisa de las pérdidas sincrotrón sobre el diseño de reactores de fusión”. 26 Reunión Anual de la Sociedad Nuclear Española, León 2000.
- [All00] Allen, S.L., and the DIII-D Team, “Overview of Recent Experimental Results from the DIII-D Advanced Tokamak Program”. Paper presented at 18<sup>th</sup> IAEA Fusion Energy Conference, Sorrento, 2000.
- [Ane98] Ané, J.M., Bottereau, J.M., Chappuis, Ph., Duchateau, J.L., Garbet, X., Ghendrih, Ph., Magaud, Ph., Moreau, D., Saoutic, B., Tonon, G., and Van Houte, D., “Rapport d’activité 1997”. Report DRFC-DIR-98-045 (Association EURATOM-CEA), 1998.
- [Ane89] Ané, J.M., Fidone, I., Johner, J., Laurent, L., Pamela, J., Roubin, J.P., Samain, A., and Tonon, G., “Continuous Tokamak Operation and Non-inductive Current Drive Methods”, Report EUR-CEA-FC-1380, 1989.
- [ASD98] “Overview on ASDEX Upgrade Results”. IAEA-F1-CN-69/OV4/3, paper presented at 17<sup>th</sup> IAEA Conference on Fusion Energy, Yokohama, 1998.
- [Bar77] De Barbieri, O., “Synchrotron Emission from High Temperature Plasmas”, Report EUR-CEA-FC-1035, 1980.

## BIBLIOGRAPHY

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- [Bek66] Bekefi, G., "Radiation Processes in Plasmas". John Wiley and Sons, New York (1966).
- [Bor83] Bornatici, M., Cano, R., De Barbieri, O., and Engelmann, F., "Electron Cyclotron Emission and Absorption in Fusion Plasmas", Nucl. Fusion **23** (1983) 1153.
- [Bos92] Bos, E., Vu, M.T., Leven, A., and Bulatao, R.A., "World Population Projections 1992-1993", Johns Hopkins University Press, Baltimore, 1992.
- [Bou00] Bourdelle, C., "Analyse de stabilité de plasmas de tokamak". Thesis. Université Joseph Fourier-Grenoble 1, 2000.
- [Con90] Conn, R.W. et al. "Economic, safety and environmental prospects of fusion reactors", Nuclear Fusion **30** (1990) 1919.
- [Coo99] Cook, I., Knight, P., Taylor, N., and Ward, D., "Definition of Parameters for Initial Blanket and Divertor Studies". Report PPA/3.1/UKAEA/2, 1999.
- [Coo00] Cook, I., Maisonnier, D., and Marbach, G., "Preparatory Work for a Power Plant Conceptual Study". Report PPA99 (N/R/900/14/A), 2000.
- [Dra81] Draper, N. R., and Smith, H., "Applied Regression Analysis". John Wiley and Sons, New York (1981).
- [Dru63] Drummond, W.E., and Rosenbluth, M.N., "Cyclotron Radiation from a Hot Plasma", Physics of Fluids **6** (1963) 276.
- [Duc99a] Duchateau, J.L., and Turck, B., "Application of Superfluid Helium Cooling Techniques to the Toroidal Field Systems of Tokamaks". IEEE Transactions on Applied Superconductivity **9** (1999) 157.
- [Duc99b] Duchateau, J.L., Albajar, F., Ané, J.M., Bottereau, J.M., Bottiglioni, F., Hertout, P., Johner, J., Magaud, P., Turck, B., and Zabiego, M., "Optimisation of the Magnet System of a 200 MW Steady State Tokamak". Paper presented at 16<sup>th</sup> Conference on Magnet Technology, Ponte Vedra Beach (Florida), 1999.
- [Duc99c] Duchateau, J.L., and Hertout, P., "User's Guide for the ESCORT Code". Report AIM-NTT-1999-052, Association EURATOM-CEA, 1999.
- [Eke98] Ekedahl, A. et al., "Profile Control Experiments in JET using Off-Axis Lower Hybrid Current Drive", Nuclear Fusion **38** (1998) 1397.

## BIBLIOGRAPHY

---

- [EIA99] Energy Information Administration (Department of Energy of U.S.), “International Energy Annual 1999”. Available at the website of EIA: <http://www.eia.doe.gov/international>.
- [Erb96] Erba M., Cherubini, A., Parail, V.V., Springmann, E., and Taroni, A., “Validation of a New Mixed Bohm/Gyro-Bohm Model on Discharges of the ITER data-base”. Report JET-R(96)07, 1996.
- [Erb97] Erba M., Cherubini, A., Parail, V.V., Springmann, E., and Taroni, A., “Development of a Non-Local Model for Tokamak Heat Transport in L-mode, H-mode and Transient Regimes”. *Plasma Physics and Controlled Fusion* **39** (1997) 261.
- [Fid92] Fidone, I., Meyer, R.L., Giruzzi, G., and Granata, G., “Temperature Dependence of Synchrotron Radiation in Inhomogeneous Tokamak Plasmas”, in *Physics Fluids B* **4** (1992) 4051.
- [FDR97] “Technical Basis for the ITER Final Design Report, Cost Review and Safety Analysis (FDR), ITER EDA Documentation Series No. 16, IAEA, Vienna (1998).
- [Fuj99] Fujita, T., and the JT-60 Team, “High Performance Experiments in JT-60U Reversed Shear Discharges”, *Nuclear Fusion* **39** (1999) 1627.
- [Fun96] Fundamenski, W.R., and Harms, A.A., “Evolution and Status of D-<sup>3</sup>He Fusion: a Critical Review”, *Fusion Technology* **29** (1996) 313.
- [Gar96] Garbet, X., “Scaling Laws of Turbulence and Transport in Tokamaks”. *Theory of Fusion Plasmas*, Varenna, 1996.
- [Gra91] Granata, G., and Fidone, I., “A New Representation of Relativistic Wave Damping above the Electron-Cyclotron Frequency”, in *J. Plasma Physics* **45** (1991) 361.
- [Gre88] Greenwald, M., Terry, J., Wolfe, S., Ejima, S., Bell, M., Kaye, S., and Neilson, G.H., “A New Look at Density Limits in Tokamaks”, Plasma Fusion Center (MIT) Report PFC/JA-86-22, 1988.
- [Hin76] Hinton, F.L., Hazeltine, R.D., *Reviews of Modern Physics* **48** (1976) 239.
- [IPB99] ITER Physics Expert Groups et al., *Nuclear Fusion* **39** (1999) 2137.
- [Jac75] Jackson, J.D., “Classical Electrodynamics”. John Wiley & Sons, New York (1975).

## BIBLIOGRAPHY

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- [Jac98] Jacquinot, J., Communication to the EPDIM/DRFC/CEA group (1998).
- [Joo96] Joos, F., "The atmospheric carbon dioxide perturbation", *Europhysics News* **27** (1996) 213.
- [Kam00] Kamada, Y., and the JT-60 Team, "Extended JT-60U Plasma Regimes toward High Integrated Performance". IAEA-CN-77/OV1/1, paper presented at 18<sup>th</sup> IAEA Conference on Fusion Energy, Sorrento, 2000.
- [Mat97] Matthews, G.F. et al., "Scaling Radiative Plasmas to ITER". *Journal of Nuclear Materials* **241-243** (1997) 450.
- [Nak98] Nakicenovic, N., Gruebler, A., and McDonald, A., "Global Energy Perspectives", University of Cambridge, 1998.
- [Mik83] Mikkelsen, D.R., and Singer, C.E., *Nucl. Technology/Fusion* **4** (1983) 237.
- [ODR99] "Technical Basis for the ITER-FEAT Outline Design", G A0 RI 2 99-12-12 W0.3 (1999).
- [Oik00] Oikawa, T. et al., "Heating and Non-Inductive Current Drive by Negative Ion Based NBI in JT-60U", *Nuclear Fusion* **40** (2000) 435.
- [Ong00] Ongena, J., and Van Oost, G., "Energy For Future Centuries; Will Fusion Be An Inexhaustible, Safe And Clean Energy Source?", *Transactions of Fusion Technology* **37** (2000) 3.
- [Pet99] Petty, C.C. et al., "Fast Wave Current Drive in H-mode Plasma on the DIII-D Tokamak", *Nuclear Fusion* **39** (1999) 1421.
- [Que68] Quemada, D., "Ondes dans les plasmas". Hermann, Paris (1968).
- [Rae95] Raeder, J. et al., "Safety and Environmental Assessment of Fusion Power (SEAFP)", European Commission, Report EURFUBRU XIII-217/95, 1995.
- [RTO98] "RTO-RC Studies for ITER", G A0 RI 1 99-02-12 W0.2 (1998).
- [Sad87] Sadler, G., and Van Belle, P., "An Improved Formulation of the  $D(t,n)^4\text{He}$  Reaction Cross-section", Report JET-IR(87)08, 1987.
- [Tam78] Tamor, S., "The Absorption Coefficient of a Magnetized Plasma for Cyclotron Radiation", *Nuclear Fusion* **18** (1978) 229.

## BIBLIOGRAPHY

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- [Tam83] Tamor, S., “Extension of Trubnikov’s Radiation Loss Formula to Relativistic Temperatures”, *Nuclear Fusion* **38** (1983) 1704.
- [Tam88] Tamor, S., “Synchrotron Radiation Loss from Hot Plasma”, *Nuclear Instruments and Methods in Physics Research A* **271** (1988) 37.
- [Ton94] Tonon, G., “Tokamak Concept Improvement”. Proceedings of the workshop held at Varena, Ed. Bernabei et al., 1994.
- [Tos00] Toschi, R., Barabaschi, P., Campbell, D., Maisonnier, D., and Ward, D., “How far is a Fusion Reactor from an Experimental Reactor”, SOFT 2000, Madrid.
- [Tru58] Trubnikov, B.A., “Magnetic Emission of High Temperature Plasma”. Thesis, Institute of Engineering and Physics, Moscow (1958); (in Russian) [English translation in AEC-tr-4073, US Atomic Energy Commission, Oak Ridge, TN (1960)].
- [Tru72] Trubnikov, B.A., “Yield Coefficient of Cyclotron Radiation from a Thermonuclear Plasma”, in *ZhETF Pis. Red.* **16** (1972) 25.
- [Tru79] Trubnikov, B.A., “Universal Coefficients for Synchrotron Emission from Plasma Configurations”, in *Reviews of Plasma Physics* (Leontovich, M.A., Ed.) Vol.7, Consultants Bureau, New-York (1979) 345.
- [Voi98] Voitsekhovitch, I., Garbet, X., Moreau, D., Bush, C.E., Budny, R.V., Gohil, P., Kinsey, J., Litaudon, X., and Taylor, T.S., “Modelling of the Shear Effects on the Thermal Ion Transport in Advanced Tokamak Scenarios”. *Physics of Plasmas* **6** (1999) 4229.
- [Wat99] JET Team, prepared by Watkins, M.L., “Physics of High Performance JET Plasmas in DT”. *Nuclear Fusion* **39** (1999) 1227.
- [Wes97] Wesson, J., “Tokamaks”. Clarendon Press, Oxford (1997).
- [Wil92] Wilson, H.R., “Bootstrap Current Scaling in Tokamaks”. *Nuclear Fusion* **32** (1992) 257.