

## **CURRICULUM VITAE**

Emeritus Professor Robert Leith DEWAR, FAA

Date and Place of Birth: March 1, 1944, Melbourne, Australia

BSc (BSc 1964, conferred August 1965, BSc Honours November 1965), MSc (August 1967),  
University of Melbourne.

PhD (December 1970) Princeton University.

### **Honours:**

Elected Fellow of the Australian Academy of Science, 1992.

Elected Fellow of the American Physical Society, 1980.

Kernot Scholarship in Physics (shared) for MSc thesis, 1967.

### **Present Appointment:**

Emeritus Professor, The Australian National University (Plasma Research Laboratory, Research School of Physics and Engineering)

### **Past Appointments:**

Assist. in Research, Plasma Phys. Lab., Princeton Univ. (PPPL) September 1967 - August 1970.

Center for Theor. Physics Postdoc. Fellowship, Univ. of Maryland, September 1970 -  
September 1971.

Research Associate, PPPL October 1971 - December 1973.

Research Fellow, The Australian National University, January 1974 - June 1976.

Senior Research Fellow, The Australian National University, July 1976 - June 1977.

Research Staff Member, PPPL, July 1977 - September 1979.

Research Physicist, PPPL, August 1979 - September 1981.

Principal Research Physicist, PPPL, October 1981 - June 1982.

Senior Fellow, The Australian National University, July 1982 - September 1992

Professor, Level E(1), The Australian National University, October 1992 - July 1996

Professor, Level E(2), The Australian National University, July 1996 – February 2011

Head, Plasma Research Laboratory, RSPHYSSE, January 1995 - February 1997

Interim Director, National Plasma Fusion Research Facility, February 1996 - February 1997

Head, Department of Theoretical Physics, RSPHYSSE, August 1988 - July 2001

Coordinator, ANU Centre for Theoretical Physics, August 1998 – May 2006

Convenor, Australian Research Council Complex Open Systems Research Network (COSNet),  
September 2004 – 2009

### **Outside Studies Appointments:**

Visiting Scientist, PPPL, 24 March - 20 May 1983

Visiting Scientist, PPPL, 27 April - 25 June 1984

Participant in Program on “Stochasticity, Turbulence, and Long-Time Behavior in Plasmas”  
Inst. for Theoretical Physics, University of California, Santa Barbara, 26 March - 24 June 1985

Visiting Scientist, PPPL, 1 - 29 May 1987

Visiting Scientist, Centre de Recherche en Physique des Plasmas

Ecole Polytechnique Fédérale de Lausanne, Switzerland, 1 June - 21 August 1987

Senior Research Fellow, University of Texas, Austin, USA, 11 Nov 1991 - 24 Jan 1992

Visiting Scientist, Columbia University, New York, USA, 3 - 25 February 1992

Guest Lecturer, Internat. Centre for Theor. Physics, Trieste, Italy, 16 May - 4 June 1993

Visiting Scientist, Heinrich-Heine Univ., Düsseldorf, Germany, 1 - 9 June 1995

Visiting Professor, National Institute for Fusion Science, Japan, 20 Feb. - 23 May 1997

Visiting Scientist, PPPL, 1 - 27 June 1998  
Visiting Scientist, PPPL, 4 September - 28 November 2000  
Visiting Scientist, Max Planck Institute for Plasma Physics, 17 September - 25 October 2002  
Visiting Professor, University of Tokyo, 9 February – 10 June, 2003  
Exchange Visitor, University of Texas at Austin, 16 May – 4 June, 2004  
Visiting Scientist, PPPL 5–19 June, 2004  
Visiting Professor, University of Tokyo, 31 August – 29 November, 2008  
Visiting scientist and Rapporteur for a PhD thesis defence at CNRS, Centre for Theoretical Physics (CPT), Marseille-Luminy, France, 20 September – 20 October, 2010  
Visiting Professor, University of New Hampshire, 19 September – 2 December, 2011

**Membership of Learned Societies (in addition to Austral. Acad. Sci. and APS):**

- Australian Institute of Physics (Chair, ACT Branch 2002–3)
- Australian Mathematical Society

**International Committees:**

- Chair, IAC of International Congress on Plasma Physics (ICPP), 2000–02 (Member 1996–present)
- Member/Alternate, Executive Committee on the IEA Implementing Agreement on the Development of the Stellarator Concept, 1995–
- Member, International Advisory Committee, Asia Pacific Plasma Theory Conference (APPTC), 1996–present.
- Member, C16: Commission on Plasma Physics, International Union Pure and Applied Physics (IUPAP), 1999–2005.
- Member, International Advisory Committee for the Korean superconducting tokamak KSTAR, 2006.
- Member, General Council of the Asia Pacific Center for Theoretical Physics (APCTP – Pohang, Korea) 2008–2010.

**Editorial Boards:**

- Member, Editorial Board, *Australian Journal of Physics*, 1997–2001.
- Member, Editorial Board, *Plasma and Fusion Research* (Japan Soc. of Plasma Science and Nuclear Fusion Research), 2005–2009.
- Divisional Associate Editor (Division of Plasma Physics, American Phys. Soc.), *Physical Review Letters*, 2006–2009.
- Associate Editor, *ANZIAM Journal*, 2008–.

**Conferences etc. Organised:**

Convenor of the ANU RSPHYS Department of Theoretical Physics' Fourth Physics Summer School *Nonlinear Dynamics and Chaos* held 7–25 January, 1991.  
President of 19th AINSE *Plasma Science and Technology* Conference / E. & F. White Workshop, 12–15 July, 1993.  
Organiser of Australia/Japan workshop on *Plasma Theory and Computation*, Robertson, NSW, 15–17 Nov. 1995.

Organiser of Australia/Japan/US Workshop on *High-Performance Computing and Visualisation in Plasma Physics Research*, Magnetic Island, Queensland, July 1–3, 1999  
Chair, Local Organising Committee for the International Congress on Plasma Physics (ICPP2002), 1998–2002  
Co-Chair, Program Committee for Complex’07, *8th Asia-Pacific Complex Systems Conference*, 2–5 July 2007, Gold Coast, Australia  
Co-organiser of 22<sup>nd</sup> *Canberra International Physics Summer School, Complex Physical, Biophysical and Econophysical Systems*, The Australian National University, Canberra, 8–19 Dec. 2008.

### **Teaching Experience:**

Tutoring: University of Melbourne, 1965–1966.  
Lecturing: Introductory Physics, Univ. of Maryland (1st semester 1971).  
Theoretical Physics B01, Sch. of Gen. Studies, ANU (2nd sem. 1975)  
Lecturer in Department of Astrophysical Sciences, Princeton University (1979–1981).  
Lecturer with rank of Professor, Princeton Univ. (1981–1982).  
Mathematics C31H (Topics in Applied Math.: Fluid Dynamics), Faculty of Science, ANU, (1st semester 1986 and 1992).  
Mathematics C34H (Topics in Applied Math.: Nonlinear Dynamics) Faculty of Science, ANU, (2nd semester 1993).  
Physics C01/PHYS 3001 (Classical Mechanics segment) Faculty of Science, ANU, (1st semester 1998– 2002).  
Physics PHYS 3002 (Classical Mechanics/Nonlinear Dynamics Segment), Faculty of Science, ANU, (2<sup>nd</sup> semester 2006).

### **Ph.D. Theses Supervised:**

A. Bhattacharjee (Princeton U. 1980) *Energy Principle with Global Invariants*  
E. Rosengaus (Princeton U. 1982) *Renormalization of Perturbation Theories for Action Angle Transformations*  
H.J. Gardner (ANU 1986) *The Free-Boundary Equilibrium Problem for Helically Symmetric Plasmas*  
R.D. Parker (ANU 1988) *Nonlinear Behaviour of the Resistive Tearing Instability in Plasmas*  
G.J. Cooper (ANU 1989) *Stability of Helical Plasmas*  
A. Pletzer (ANU 1992) *Two-dimensional Computations of the Outer Matching Data in Resistive Stability*  
K.P. Wessen (ANU 1993) *Application of the Invariant Manifold Reduction to Plasma Instabilities*  
Z. Meglicki (ANU, 1996) *Analysis and Application of Smoothed Particle Magneto-hydrodynamics*  
S.R. Hudson (ANU, 1997) *Generalized Magnetic Coordinates for Toroidal Magnetic Fields*  
P. Cuthbert (ANU, 1999) *Ballooning Instabilities in Three-Dimensional Toroidal Plasmas*  
A.B. Khorev (ANU, 2002) *The Concept of Approximate Action-Angle Variables for Nonintegrable Hamiltonian Dynamics*  
B.F. McMillan (ANU, 2005) *Global wavemodes of dissipative fluid models in strongly Three-dimensional plasmas: Calculation and Interpretation*

M. McGann (ANU, 2013) *Hamilton-Jacobi theory for connecting equilibrium magnetic fields across a toroidal surface supporting a plasma pressure discontinuity*

R.F. Abdullatif (ANU, not yet submitted)

### **Masters Theses Supervised:**

D. Barmaz (EPFL, Lausanne, Switzerland 2010 – research done at ANU) *High-n Stability of a pressure discontinuity in a three-dimensional plasma*

A.M. Gibson (ANU, 2012) *Reconciliation of Almost-Invariant Tori in Chaotic Systems*

### **Honours Theses Supervised:**

A.L. Fairhall (ANU Physics 1990–91, University Medal) *Centre Manifold Reduction of Tearing Modes in a Plasma Current Sheet*

V. Robins (ANU Mathematics 1994, University Medal) *Periodic Orbits and Invariant Tori in Symplectic Maps*

### **10 recent papers**


1. **R.L. Dewar**, S.R. Hudson, and A.M. Gibson, *Action-gradient-minimizing pseudo-orbits and almost-invariant tori*, Commun. Nonlinear Sci. Numer. Simulat. **17**, 2062–2073 (2012) [doi:10.1016/j.cnsns.2011.04.022](https://doi.org/10.1016/j.cnsns.2011.04.022)
2. **R.L. Dewar** and D. Leykam, *Dressed test particles, oscillation centres and pseudo-orbits*, Plasma Phys. Control. Fusion **54**, 014002-1–8 (2012) [doi:10.1088/0741-3335/54/1/014002](https://doi.org/10.1088/0741-3335/54/1/014002)
3. S.R. Hudson, **R.L. Dewar**, M.J. Hole and M. McGann, *Nonaxisymmetric, multi-region relaxed magnetohydrodynamic equilibrium solutions*, Plasma Phys. Control. Fusion **54**, 014005-1–7 (2012) [doi:10.1088/0741-3335/54/1/014005](https://doi.org/10.1088/0741-3335/54/1/014005)
4. D. Barmaz, W.A. Cooper, B.F. McMillan and **R.L. Dewar**, *Diamagnetic drift stabilized ballooning modes in a 3D heliotron*, Plasma Phys. Control. Fusion **54**, 014006-1–7 (2012) [doi:10.1088/0741-3335/54/1/014006](https://doi.org/10.1088/0741-3335/54/1/014006)
5. Z. Yoshida and **R.L. Dewar**, *Helical bifurcation and tearing mode in a plasma – a description based on Casimir foliation*, J. Phys. A: Math. Gen. **45**, 365502-1–36 (2012) [doi:10.1088/1751-8113/45/36/365502](https://doi.org/10.1088/1751-8113/45/36/365502)
6. S.R. Hudson, **R.L. Dewar**, G. Dennis, M.J. Hole, M. McGann, G. von Nessi and S. Lazerson, *Computation of multi-region relaxed magnetohydrodynamic equilibria*, Phys. Plasmas **19**, 112502-1–18 (2012) [doi:10.1063/1.4765691](https://doi.org/10.1063/1.4765691)
7. **R.L. Dewar**, S.R. Hudson and A.M. Gibson, *Generalised action-angle coordinates defined on island chains*, Plasma Phys. Control. Fusion **55**, 014004-1–5 (2013) [doi:10.1088/0741-3335/55/1/014004](https://doi.org/10.1088/0741-3335/55/1/014004)
8. **R.L. Dewar**, A. Bhattacharjee, R.M. Kulsrud & Wright, *Plasmoid solutions of the Hahm-Kulsrud-Taylor equilibrium model*, Phys. Plasmas **20**, 082103-1–7 (2013) [doi:10.1063/1.4817276](https://doi.org/10.1063/1.4817276)
9. G.R. Dennis, S.R. Hudson, D. Terranova, P. Franz, **R.L. Dewar** and M.J. Hole, *A minimally constrained model of self-organized helical states in reversed-field pinches*, Phys. Rev. Lett. **111**, 055003-1–5 (2013) [doi:10.1103/PhysRevLett.111.055003](https://doi.org/10.1103/PhysRevLett.111.055003)
10. G.R. Dennis, S.R. Hudson, **R.L. Dewar** and M.J. Hole, *The Infinite Interface Limit of Multiple-Region Relaxed MHD*, Phys. Plasmas **20**, 032509-1–6 (2013)

**50 highest-cited publications** (in citation order from **ResearcherID 8<sup>th</sup> May 2014**: h-index 26)




1. Title: INTERACTION BETWEEN HYDROMAGNETIC WAVES AND A TIME-DEPENDENT, INHOMOGENEOUS MEDIUM  
Author(s): DEWAR, RL  
Source: **PHYSICS OF FLUIDS** Volume: **13** Issue: **11** Pages: **2710-&** Published: **1970**  
Times Cited: **233**
2. Title: BALLOONING MODE SPECTRUM IN GENERAL TOROIDAL SYSTEMS  
Author(s): DEWAR, RL; GLASSER, AH  
Source: **PHYSICS OF FLUIDS** Volume: **26** Issue: **10** Pages: **3038-3052** Published: **1983**  
Times Cited: **225**
3. Title: IDEAL MHD STABILITY CALCULATIONS IN AXISYMMETRIC TOROIDAL COORDINATE SYSTEMS  
Author(s): GRIMM, RC; DEWAR, RL; MANICKAM, J  
Source: **JOURNAL OF COMPUTATIONAL PHYSICS** Volume: **49** Issue: **1** Pages: **94-117** Published: **1983**  
Times Cited: **107**
4. Title: Theory and simulation of rotational shear stabilization of turbulence  
Author(s): WALTZ, RE; DEWAR, RL; GARBET, X  
Source: **PHYSICS OF PLASMAS** Volume: **5** Issue: **5** Pages: **1784-1792** Published: **MAY 1998**  
Times Cited: **75**
5. Title: N-DEPENDENCE OF BALLOONING INSTABILITIES  
Author(s): DEWAR, RL; MANICKAM, J; GRIMM, RC; et al.  
Source: **NUCLEAR FUSION** Volume: **21** Issue: **4** Pages: **493-498** Published: **1981**  
Times Cited: **65**
6. Title: ENERGY PRINCIPLE WITH GLOBAL INVARIANTS  
Author(s): BHATTACHARJEE, A; DEWAR, RL  
Source: **PHYSICS OF FLUIDS** Volume: **25** Issue: **5** Pages: **887-897** Published: **1982**  
Times Cited: **59**
7. Title: OSCILLATION CENTER QUASILINEAR THEORY  
Author(s): DEWAR, RL  
Source: **PHYSICS OF FLUIDS** Volume: **16** Issue: **7** Pages: **1102-1107** Published: **1973**  
Times Cited: **59**
8. Title: RENORMALIZED CANONICAL PERTURBATION-THEORY FOR STOCHASTIC PROPAGATORS  
Author(s): DEWAR, RL  
Source: **JOURNAL OF PHYSICS A-MATHEMATICAL AND GENERAL** Volume: **9** Issue: **12** Pages: **2043-2057** Published: **1976**  
Times Cited: **57**
9. Title: FREQUENCY-SHIFT DUE TO TRAPPED PARTICLES  
Author(s): DEWAR, RL  
Source: **PHYSICS OF FLUIDS** Volume: **15** Issue: **4** Pages: **712-&** Published: **1972**  
Times Cited: **55**
10. Title: BACKSCATTER INSTABILITY OF SOLAR-WIND ALFVEN WAVES  
Author(s): COHEN, RH; DEWAR, RL  
Source: **JOURNAL OF GEOPHYSICAL RESEARCH** Volume: **79** Issue: **28** Pages: **4174-4178** Published: **1974**

- Times Cited: **54**
11. Title: LONG-WAVELENGTH KINK INSTABILITIES IN LOW-PRESSURE, UNIFORM AXIAL CURRENT, CYLINDRICAL PLASMAS WITH ELLIPTIC CROSS-SECTIONS  
 Author(s): DEWAR, RL; GRIMM, RC; JOHNSON, JL; et al.  
 Source: **PHYSICS OF FLUIDS** Volume: **17** Issue: **5** Pages: **930-938** Published: **1974**  
 Times Cited: **54**
  12. Title: LAGRANGIAN THEORY FOR NONLINEAR WAVE PACKETS IN A COLLISIONLESS PLASMA  
 Author(s): DEWAR, RL  
 Source: **JOURNAL OF PLASMA PHYSICS** Volume: **7** Issue: **APR** Pages: **267-&** Published: **1972**  
 Times Cited: **50**
  13. Title: ENERGY-MOMENTUM TENSORS FOR DISPERSIVE ELECTROMAGNETIC-WAVES  
 Author(s): DEWAR, RL  
 Source: **AUSTRALIAN JOURNAL OF PHYSICS** Volume: **30** Issue: **5-6** Pages: **533-575**  
 Published: **1977**  
 Times Cited: **49**
  14. Title: MODULATIONAL INSTABILITIES DUE TO TRAPPED ELECTRONS  
 Author(s): DEWAR, RL; MANHEIME.WM; KRUER, WL  
 Source: **PHYSICAL REVIEW LETTERS** Volume: **28** Issue: **4** Pages: **215-&** Published: **1972**  
 Times Cited: **48**
  15. Title: ENERGY PRINCIPLE WITH GLOBAL INVARIANTS FOR TOROIDAL PLASMAS  
 Author(s): BHATTACHARJEE, A; DEWAR, RL; MONTICELLO, DA  
 Source: **PHYSICAL REVIEW LETTERS** Volume: **45** Issue: **5** Pages: **347-350** Published: **1980**  
 Times Cited: **47**
  16. Title: Improved particle confinement mode in the H-1 heliac plasma  
 Author(s): SHATS, G; RUDAKOV, DL; BLACKWELL, BD; et al.  
 Source: **PHYSICAL REVIEW LETTERS** Volume: **77** Issue: **20** Pages: **4190-4193** Published: **NOV 11 1996**  
 Times Cited: **45**
  17. Title: LINEAR-STABILITY OF RESISTIVE MHD MODES - AXISYMMETRICAL TOROIDAL COMPUTATION OF THE OUTER REGION MATCHING DATA  
 Author(s): PLETZER, A; BONDESON, A; DEWAR, RL  
 Source: **JOURNAL OF COMPUTATIONAL PHYSICS** Volume: **115** Issue: **2** Pages: **530-549**  
 Published: **DEC 1994**  
 Times Cited: **41**
  18. Title: COUPLED TEARING MODES IN PLASMAS WITH DIFFERENTIAL ROTATION  
 Author(s): DEWAR, RL; PERSSON, M  
 Source: **PHYSICS OF FLUIDS B-PLASMA PHYSICS** Volume: **5** Issue: **12** Pages: **4273-4286**  
 Published: **DEC 1993**  
 Times Cited: **40**
  19. Title: Spectrum of ballooning instabilities in a stellarator  
 Author(s): COOPER, WA; SINGLETON, DB; DEWAR, RL  
 Source: **PHYSICS OF PLASMAS** Volume: **3** Issue: **1** Pages: **275-280** Published: **JAN 1996**  
 Times Cited: **39**
  20. Title: TILTING AND SHIFTING MODES IN A SPHEROMAK  
 Author(s): JARDIN, SC; CHANCE, MS; DEWAR, RL; et al.

- Source: **NUCLEAR FUSION** Volume: **21** Issue: **9** Pages: **1203-1207** Published: **1981**  
Times Cited: **37**
21. Title: MAGNETIC COORDINATES FOR EQUILIBRIA WITH A CONTINUOUS SYMMETRY  
Author(s): DEWAR, RL; MONTICELLO, DA; SY, WNC  
Source: **PHYSICS OF FLUIDS** Volume: **27** Issue: **7** Pages: **1723-1732** Published: **1984**  
Times Cited: **36**
22. Title: NONIDEAL STABILITY - VARIATIONAL METHOD FOR THE DETERMINATION OF THE OUTER-REGION MATCHING DATA  
Author(s): PLETZER, A; DEWAR, RL  
Source: **JOURNAL OF PLASMA PHYSICS** Volume: **45** Pages: **427-451** Published: **JUN 1991**  
Times Cited: **33**
23. Title: LAGRANGIAN DERIVATION OF ACTION-CONSERVATION THEOREM FOR DENSITY WAVES  
Author(s): DEWAR, RL  
Source: **ASTROPHYSICAL JOURNAL** Volume: **174** Issue: **2** Pages: **301-&** Published: **1972**  
Times Cited: **30**
24. Title: HELIAC PARAMETER STUDY  
Author(s): MONTICELLO, DA; DEWAR, RL; FURTH, HP; et al.  
Source: **PHYSICS OF FLUIDS** Volume: **27** Issue: **5** Pages: **1248-1252** Published: **1984**  
Times Cited: **29**
25. Title: MHD STABILITY PROPERTIES OF BEAN-SHAPED TOKAMAKS  
Author(s): GRIMM, RC; CHANCE, MS; TODD, AMM; et al.  
Source: **NUCLEAR FUSION** Volume: **25** Issue: **7** Pages: **805-823** Published: **1985**  
Times Cited: **28**
26. Title: INFLUENCE OF DIAMAGNETIC DRIFTS ON CRITICAL BETA IN TOKAMAKS  
Author(s): TANG, WM; DEWAR, RL; MANICKAM, J  
Source: **NUCLEAR FUSION** Volume: **22** Issue: **8** Pages: **1079-1081** Published: **1982**  
Times Cited: **27**
27. Title: SATURATION OF KINETIC PLASMA INSTABILITIES BY PARTICLE TRAPPING  
Author(s): DEWAR, RL  
Source: **PHYSICS OF FLUIDS** Volume: **16** Issue: **3** Pages: **431-435** Published: **1973**  
Times Cited: **24**
28. Title: VARIATIONAL METHOD FOR 3-DIMENSIONAL TOROIDAL EQUILIBRIA  
Author(s): BHATTACHARJEE, A; WILEY, JC; DEWAR, RL  
Source: **COMPUTER PHYSICS COMMUNICATIONS** Volume: **31** Issue: **2-3** Pages: **213-225**  
Published: **1984**  
Times Cited: **20**
29. Title: NONLINEAR DESTABILIZATION OF LINEARLY STABLE TEARING MODES WITH MULTIPLE RATIONAL SURFACES  
Author(s): PERSSON, M; DEWAR, RL  
Source: **PHYSICS OF PLASMAS** Volume: **1** Issue: **5** Pages: **1256-1263** Published: **MAY 1994**  
Times Cited: **19**
30. Title: 2-DIMENSIONAL GENERALIZATIONS OF THE NEWCOMB EQUATION  
Author(s): DEWAR, RL; PLETZER, A  
Source: **JOURNAL OF PLASMA PHYSICS** Volume: **43** Pages: **291-310** Published: **APR 1990**

- Times Cited: **19**
31. Title: INDUCED SCATTERING OF LIGHT BY LIGHT IN A VACUUM  
 Author(s): DEWAR, RL  
 Source: **PHYSICAL REVIEW A** Volume: **10** Issue: **6** Pages: **2107-2111** Published: **1974**  
 Times Cited: **19**
  32. Title: Eigenvalue problems for Beltrami fields arising in a three-dimensional toroidal magnetohydrodynamic equilibrium problem  
 Author(s): HUDSON, SR; HOLE, MJ; DEWAR, RL  
 Source: **PHYSICS OF PLASMAS** Volume: **14** Issue: **5** Pages: - Published: **MAY 2007**  
 Times Cited: **18**  
 DOI: **10.1063/1.2722721** 
  33. Title: Toroidally localized and nonlocalized ballooning instabilities in a stellarator  
 Author(s): CUTHBERT, P; LEWANDOWSKI, JLV; GARDNER, HJ; et al.  
 Source: **PHYSICS OF PLASMAS** Volume: **5** Issue: **8** Pages: **2921-2931** Published: **AUG 1998**  
 Times Cited: **16**
  34. Title: ALMOST INVARIANT-MANIFOLDS FOR DIVERGENCE-FREE FIELDS  
 Author(s): DEWAR, RL; HUDSON, SR; PRICE, PF  
 Source: **PHYSICS LETTERS A** Volume: **194** Issue: **1-2** Pages: **49-56** Published: **OCT 24 1994**  
 Times Cited: **16**
  35. Title: BIFURCATION OF THE RESISTIVE ALFVEN-WAVE SPECTRUM  
 Author(s): DEWAR, RL; DAVIES, B  
 Source: **JOURNAL OF PLASMA PHYSICS** Volume: **32** Issue: **DEC** Pages: **443-461**  
 Published: **1984**  
 Times Cited: **16**
  36. Title: THE LINEAR-STABILITY ANALYSIS OF MHD MODELS IN AXISYMMETRIC TOROIDAL GEOMETRY  
 Author(s): MANICKAM, J; GRIMM, RC; DEWAR, RL  
 Source: **COMPUTER PHYSICS COMMUNICATIONS** Volume: **24** Issue: **3-4** Pages: **355-361**  
 Published: **1981**  
 Times Cited: **16**
  37. Title: ENERGY-LOSS DUE TO BINARY COLLISIONS IN A RELATIVISTIC PLASMA  
 Author(s): FRANKEL, NE; HINES, KC; DEWAR, RL  
 Source: **PHYSICAL REVIEW A** Volume: **20** Issue: **5** Pages: **2120-2129** Published: **1979**  
 Times Cited: **15**
  38. Title: Manipulation of islands in a heliac vacuum field  
 Author(s): HUDSON, SR; DEWAR, RL  
 Source: **PHYSICS LETTERS A** Volume: **226** Issue: **1-2** Pages: **85-92** Published: **FEB 10 1997**  
 Times Cited: **14**
  39. Title: EXACT OSCILLATION-CENTER TRANSFORMATIONS  
 Author(s): DEWAR, RL  
 Source: **JOURNAL OF PHYSICS A-MATHEMATICAL AND GENERAL** Volume: **11** Issue: **1**  
 Pages: **9-26** Published: **1978**  
 Times Cited: **14**
  40. Title: Relaxed Plasma Equilibria and Entropy-Related Plasma Self-Organization Principles



- Author(s): Dewar, Robert L.; Hole, Matthew J.; McGann, Mathew; et al.  
Source: **Entropy** Volume: **10** Issue: **4** Pages: **621-634** Published: **2008**  
Times Cited: **14**  
DOI: **10.3390/e10040621** 
41. Title: Strong "quantum" chaos in the global ballooning mode spectrum of three-dimensional plasmas  
Author(s): DEWAR, RL; CUTHBERT, P; BALL, R  
Source: **PHYSICAL REVIEW LETTERS** Volume: **86** Issue: **11** Pages: **2321-2324** Published: **MAR 12 2001**  
Times Cited: **13**
42. Title: Stellarator symmetry  
Author(s): DEWAR, RL; HUDSON, SR  
Source: **PHYSICA D** Volume: **112** Issue: **1-2** Pages: **275-280** Published: **JAN 15 1998**  
Times Cited: **13**
43. Title: A NEW FORMULATION OF THE RESISTIVE TEARING MODE-STABILITY CRITERION  
Author(s): CHU, MS; DEWAR, RL; GREENE, JM; et al.  
Source: **PHYSICS OF FLUIDS B-PLASMA PHYSICS** Volume: **5** Issue: **5** Pages: **1593-1604** Published: **MAY 1993**  
Times Cited: **13**
44. Title: NONLINEAR FREQUENCY-SHIFT OF A PLASMA-WAVE  
Author(s): DEWAR, RL; LINDL, J  
Source: **PHYSICS OF FLUIDS** Volume: **15** Issue: **3** Pages: **820-&** Published: **1972**  
Times Cited: **13**
45. Title: Stepped pressure profile equilibria in cylindrical plasmas via partial Taylor relaxation  
Author(s): HOLE, MJ; HUDSON, SR; DEWAR, RL  
Source: **JOURNAL OF PLASMA PHYSICS** Volume: **72** Pages: **1167-1171** Published: **DEC 2006**  
Times Cited: **12**  
DOI: **10.1017/S0022377806005861** 
46. Title: Analysis of perturbed magnetic fields via construction of nearby integrable fields  
Author(s): HUDSON, SR; DEWAR, RL  
Source: **PHYSICS OF PLASMAS** Volume: **6** Issue: **5** Pages: **1532-1538** Published: **MAY 1999**  
Times Cited: **12**
47. Title: OPTIMAL OSCILLATION-CENTER TRANSFORMATIONS  
Author(s): DEWAR, RL  
Source: **PHYSICA D** Volume: **17** Issue: **1** Pages: **37-53** Published: **1985**  
Times Cited: **12**
48. Title: Bifurcation in electrostatic resistive drift wave turbulence  
Author(s): NUMATA, R; BALL, R; DEWAR, RL  
Source: **PHYSICS OF PLASMAS** Volume: **14** Issue: **10** Pages: - Published: **OCT 2007**  
Times Cited: **11**  
DOI: **10.1063/1.2796106** 
49. Title: Metamorphosis of plasma turbulence-shear-flow dynamics through a transcritical bifurcation  
Author(s): BALL, R; DEWAR, RL; SUGAMA, H

Source: **PHYSICAL REVIEW E** Volume: **66** Issue: **6** Pages: - Published: **DEC 2002**  
Times Cited: **11**

DOI: **10.1103/PhysRevE.66.066408** 

**50.** Title: HAMILTONIAN MAPS FOR HELIAC MAGNETIC ISLANDS

Author(s): DAVIDSON, MG; DEWAR, RL; GARDNER, HJ; et al.

Source: **AUSTRALIAN JOURNAL OF PHYSICS** Volume: **48** Issue: **5** Pages: **871-886**

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