

solutions as “equilibrium” solutions, and by IJ’s studied refusal to use “that” as a relative pronoun, a refusal that could make H. W. Fowler undergo the usual rotational instability in his grave.)

Each of these books offers an effective entrée into a lively area of research and a helpful guide for those who wish to apply the theory. Each book would nicely complement the standard texts used in beginning graduate courses in ordinary differential equations.

REFERENCES

- J. C. Alexander and J. Yorke (1978), *Global bifurcations of periodic orbits*, Amer. J. Math. **100**, 263–292.
- G. Hermann (1967a), *Stability of equilibrium of elastic systems subjected to nonconservative forces*, Appl. Mech. Rev. **20**, 103–108.
- P. J. Holmes (1977), *Bifurcation to divergence and flutter in flow induced oscillations—a finite dimensional analysis*, J. Sound Vibration **53**, 471–503.
- P. J. Holmes, editor (1980), *New approaches to nonlinear problems in dynamics*, SIAM.
- P. J. Holmes and J. E. Marsden (1978), *Bifurcations to divergence and flutter in flow induced oscillations—an infinite dimensional analysis*. Automatica **14**, 367–384.
- E. Hopf (1942), *Abzweigung einer periodischer Lösung von einer stationären Lösung eines Differentialsystems*, Ber. Verh. Säch. Akad. Wiss. Leipzig Math.-Nat **94**, 3–22; English transl. by L. N. Howard and N. Kopell in Marsden and McCracken (1976).
- J. Ize (1976), *Bifurcation theory for Fredholm operators*, Mem. Amer. Math. Soc. No. 174.
- D. D. Joseph (1976), *Stability of fluid motions*, vols. I, II, Springer-Verlag, Berlin and New York.
- J. E. Marsden and M. McCracken (1976), *The Hopf bifurcation and its applications*, Springer-Verlag, Berlin and New York.
- D. Rand (1982), *Dynamics and symmetry. Predictions for modulated waves in rotating fluids*, Arch. Rational Mech. Anal. **79**, 1–37.
- D. Ruelle and F. Takens (1971), *On the nature of turbulence*, Comm. Math. Phys. **20**, 167–192.
- F. Takens (1974a), *Forced oscillations and bifurcations*, Communication 3, Math. Inst., Rijksuniversiteit, Utrecht.
- _____ (1974), *Singularities of vector fields*, Inst. Hautes Études Sci. Publ. Math. **43**, 47–100.

STUART S. ANTMAN

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Interpolation of linear operators, by S. G. Kreĭn, Ju. I. Petunin, and E. M. Semenov, Translations of Mathematical Monographs, vol. 54, American Mathematical Society, Providence, R.I., 1982, xii + 375 pp., \$78.00. ISBN 0-6869-1993-9

The pair have reached that fearful chasm,
 How tempting to bestride!
 For lordly Wharf is there pent in
 With rocks on either side.

WILLIAM WORDSWORTH