REFERENCES ON DYNAMICAL SYSTEMS

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The references cited below contain over 1100 papers and monographs of interest to researchers in dynamical systems. Special emphasis has been placed on papers related to the dynamics of differential equations and their discrete analogues. References prior to 1960 are noted in boldface. Even though this list is incomplete, it is made available with the hope that it will be useful for obtaining an introduction to the literature on dynamical systems.

The compilation of these references began during the 1989-1990 IMA year on Dynamical Systems and Their Applications, and a version was incorporated into the AHPCRC Preprint Series in 1991. The references are corrected and expanded from time to time. Comments and suggestions are welcome.[1] Up-to-date versions of these references are available on the homepage of the author on the World Wide Web. One can access this homepage via http://www.math.umn.edu.

LIST OF TOPICS

Approximation Theory, Discretizations. Ait Ou Ammi and Marion (1992), Bae, Luskin, and Sell (1996), Bishop, Flesch, Forest, McLaughlin, and Overman (1990), Broomhead and Iserles (1992), Cahn, Chow, and Van Vleck (1992) Chow and Palmer (1991), Debussche, Dubois, and Temam (1993), Demengel and Ghidaglia (1988), Devulder and Marion (1992), Devulder, Marion, and Titi (1993), Eidenschink (1995), Fabes, Luskin, and Sell (1991), Foias, Jolly, Kevrekidis, Sell, and Titi (1988), Foias, Jolly, Kevrekidis, and Titi (1991), Foias, Sell, and Titi (1989), Foias and Temam (1988a, 1988b), Foias and Titi (1991), Friedman (1993), Friedman and Doedel (1993), Hammel, Yorke, and Grebogi (1988), Jolly and Kevrekidis (1987a, 1987b), Jolly, Kevrekidis, and Titi (1989, 1991), D Jones, Margolin, and Titi (1993), D Jones and Stuart (1993), D Jones and Titi (1991, 1993), Kamaev (1980), Khalsa (1986, 1987), Kwak, Sell, and Shao (1994), Laminie, Pascal, and Temam (1992), Luskin and Sell (1988), Margolin and Jones (1992), Marion (1989a, 1989b), Marion and Temam (1989, 1990), Marion and Xu (1992), Miklavčič (1989a, 1989b), Nusse and Yorke (1991), Okamoto and Shoji (1993), Osinga (1996), Pliss and Sell (1991, 1993, 1996), Promislow and Temam (1991), Russell, Sloan, and Trummer (1993), Sell (1993), Shao and Titi (1993), Stokes (1972), Stuart (1989, 1994), Stuart and Humphries (1994), Temam (1988b, 19889a, 1989b, 1990, 1991), Titi (1990), Urabe (1965, 1966), and Yan (1992).

[1]We express our appreciation to Y Bibikov, S Dumas, C Foias, M Golubitsky, A Haraux, D D Holm, P J Holmes, H Keynes, R McGehee, M Miklavčič, J-C Saut, A M Stuart, A Vanderbauwhede, and C E Wayne for their helpful suggestions.

Attractors. Abarbanel, Brown, and Kennel (1991), Abergel (1988), Afraimovich, Babin, and Chow (1994), Afraimovich and Pesin (1987), Arrieta, Carvalho, and Hale (1992), J Auslander, Bhatia, and Seibert (1964), Babin (1992, 1993b), Babin and Sell (1994), Babin and Vishik (1982, 1983a, 1983b, 1983c, 1984, 1985, 1987, 1989), Ball (1996), Ball, Holmes, James, Pego, and Swart (1990), Bhatia and Szegö (1970), Billotti and LaSalle (1971), Bloom (1995), Bloom and Hao (1994), Bréfort, Ghidaglia, and Temam (1988), Brunovský (1990), Buescu (1994), Carvalho and Cuminato (1997), Chafee and Infante (1974), Conley (1978), Constantin and Foias (1985), Constantin, Foias, and Gibbon (1988), Constantin, Foias, Manley, and Temam (1985), Constantin, Foias, and Temam (1985, 1988), Conway, Hopf, and Smoller (1978), Crauel, Debussche, and Flandoli (1997), Doering, Gibbon, Holm, and Nicolaenko (1988a, 1988b), Doering, Elgin, Gibbon, and Holm (1988), Douady and Oesterlé (1980), Eden (1988), Eden, Foias, and Kalantarov (1998), Eden, Foias, and Nicolaenko (1994), Eden, Foias, Nicolaenko, and Temam (1994), Eden, Foias, and Temam (1991), Eden, Michaux, and Rakotoson (1991), Feireisl (1995), Foias, Manley, and Temam (1987), Foias and Temam (1979, 1987, 1988a, 1988b), Freedman, Ruan, and Tang (1994), Fusco and Hale (1989), Fusco and Rocha (1989), Gedeon and Mischaikow (1995), Ghidaglia (1988a, 1988b, 1988c, 1989), Ghidaglia and Héron (1987), Ghidaglia, Marion, and Temam (1988), Ghidaglia and Temam (1987, 1988a, 1988b, 1990), Grebogi, Ott, and Yorke (1988), Guckenheimer and Williams (1979), Guo and Su (1993), Hale (1986, 1988), Hale, LaSalle, and Slemrod (1972), Hale, Lin, and Raugel (1988), Hale and Lopes (1973), Hale, Magalhães, and Oliva (1984), Hale and Raugel (1988, 1989, 1990, 1991, 1992c, 1992d, 1993a, 1993b), Hale and Rocha (1986, 1987), Haraux (1988), Hénon (1976), Henry (1981, 1986, 1988), Ikeda and Matsumoto (1986), Il'yashenko (1992), Ladyzhenskaya (1972, 1982, 1987, 1991), Lafon (1988), Lieb (1984), Liu (1993a, 1993b, 1993c, 1993d, 1993e), Lorenz (1963), Loud and Sethna (1966), Mallet-Paret (1976, 1988), Mallet-Paret and Sell (1994a, 1994b), Mañé (1981), Manley and Marion (1992), Manley, Marion, and Temam (1993), Marion (1987, 1989d), Massat (1983a, 1983b), McCord and Mischaikow (1992), Mischaikow (1992), Milnor (1985), Newhouse (1979), Nicolaenko, Scheurer, and Temam (1985), Norman (1997), Palmore (1994), Pilyugin (1994a, 1994b), Pliss and Sell (1991, 1993, 1996), Promislow and Temam (1991), Pugh and Shub (1989), Quandt (1989), Rand (1978), Rocha (1988, 1991), Ruelle (1981), Sell (1989, 1995), Sell and Taboada (1992), Sell and You (1992, 1994a, 1997, 1998), Shao (1994), Shao and Titi (1993), Smith (1994), Sparrow (1982), Taboada (1990), Temam (1988a, 1989a), Vishik (1992), Vuillermot (1991, 1992a, 1992b, 1993), Williams (1974, 1979), and Yan (1992).

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Celestial Mechanics. Arenstorf (1968, 1969), Easton (1971, 1972, 1975b), Easton and McGehee (1979), Elbialy (1988a, 1988b), Giorgilli, Delshams, Fontich, Galgani, and Simó (1989), Kummer and Churchill (1997), Kyner (1964), Mather and McGehee (1975), McGehee (1973a, 1974), Meyer (1991), Meyer and Hall (1992), Meyer and Palmore (1970), Meyer and Schmidt (1982, 1988), Moeckel (1994), Moser (1973), Pascual (1998), **Poincaré (1890, 1892)**, **Siegel (1956)**, Seigel and Moser (1971), and Xia (1993).

Center Manifolds, Stable Manifolds, etc. Abraham and Robbin (1967), Ball (1973), Bates and C Jones (1988), **Bohl (1904)**, Boxler (1989, 1990b), Campbell, Bélair, Ohira, and Milton (1995), Carr (1981), Chow and Lu (1988b), Chow and Yi (1994), Chow, Liu, and Yi (1996), Dell' Antonio and D'Onofrio (1986), Fenichel (1971), Friedman (1993), Friedman and Doedel (1993), Fusco and Oliva (1988, 1990), Guckenheimer and Knobloch (1983), **Hadamard (1901)**, Hartman (1971), Henry (1981), Hirsch and Pugh (1970), Hirsch, Pugh, and Shub (1977), Iwasaki (1994), Keller (1983), Kelley (1967a, 1967b), Kupka (1963, 1964) **Lewis (1938)**, **Lyapunov (1892)**, McGehee (1973b), Meyer (1984a), Mielke (1990, 1992), Mizumachi (1997), Pelikan and Wan (1992), **Perron (1928, 1930b)**, Pilyugin (1992, 1994a), Pliss (1964), Robbin (1971), Sacker (1969), Sell (1978, 1984, 1985), Sell and You (1998), Smale (1963a, 1963b, 1963c, 1967), **Stenberg (1957)**, Stokes (1971), Vanderbauwhede (1989a), Vanderbauwhede and Iooss (1992), and van Gils and Vanderbauwhede (1987).

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Conservation Laws. Čanić (1998), Dafermos (1972b), Keyfitz and Lopes-Filho (1994), Marchesin and Pal/-meira (1994), and Schecter and Shearer (1991).

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Damped Conservative Systems. [3] Babin and Vishik (1987), Bishop, Fesser, Lomdahl, and Trullinger (1983), Bishop, Flesch, Forest, McLaughlin, and Overman (1990), Ghidaglia (1988a, 1988b), Ghidaglia and Temam (1987, 1988), Hale, Lin, and Raugel (1988), Hale and Raugel (1988, 1989, 1990), Haraux (1984, 1988), Keller (1983), Massat (1983b), Mora (1988), Mora and Solà-Morales (1987, 1988), Nikolenko (1980), and Temam (1988a).

Delay Equations, Functional Differential Equations. an der Heiden, Longtin, Mackey, Milton, and Scholl (1990), Anderson (1993), Bélair (1993), Bélair and Mackey (1989), Campbell, Bélair, Ohira, and Milton (1995), Chow (1973, 1974), Chow and Leiva (1994, 1995, 1996), Chow, Lin, and Mallet-Paret (1989), Chow and Mallet-Paret (1977), Coffman and Schäffer (1971), Cooke (1970), Cruz and Hale (1970, 1971), Dormayer (1989), Faria and Magalhães (1996), Fiedler and Mallet-Paret (1989), Friesecke (1993), Gopalsamy, Kulenocić, and Ladas (1990), Grafton (1972), Grossman and Yorke (1972), Gyori and Wu (1991), Hale (1963b, 1963c, 1964, 1966, 1970, 1971a, 1971b, 1974, 1977), Hale and Lin (1986a, 1986b), Hale and Mawhin (1974), Hale and Perelló (1964), Hastings (1969), Henry (1970, 1974), Ikeda and Matsumoto (1987), Ivanov and Sharkovsky (1989), G Jones (1964), Kaplan and Yorke (1977), Karakostas, Philos, and Sficas (1992), Kharitonov and Paice (1997), Kuang, Smith, and Martin (1991), Kurzweil (1972), Lani-Wayda (1995), Lillo (1975), Mackey and Milton (1989), Mackey and Nechaeva (1994), Mallet-Paret (1977, 1988), Mallet-Paret and Nussbaum (1992), Mallet-Paret and Sell (1994a, 1994b), McCord and Mischaikow (1992), Miller and Sell (1970), Morita (1984, 1985, 1986), Nussbaum (1972, 1973, 1974), Oliva (1969), Pecelli (1971, 1974), Perelló (1968), Ragazzo and Malta (1992), Rustichini (1989a, 1989b), Schäffer (1971), Smith (1994), Stephan (1970), Stokes (1964, 1971), and Xie (1991).

Degree-Index Theory, Connection Matrices. Conley (1978, 1988), Conley and Easton (1971), Conley and Zehnder (1983, 1984), Cronin (1964), Dancer and Ortega (1994), Eidenschink (1995), Fiedler and Mischaikow (1989), Floer and Zehnder (1988), Franzosa and Mischaikow (1988), Lloyd (1978), Mischaikow and Hattori (1990), Moeckel (1988), Mrozek and Rybakowski (1992), Reineck (1988), Robbin and Salamon (1988), and Salamon (1985).

Dimension Theory. [4] Babin and Vishik (1982, 1983a, 1983c, 1989), Chepyzhov and Vishik (1993), Constantin and Foias (1985), Constantin, Foias, and Gibbon (1988), Constantin, Foias, Manley, and Temam (1985), Constantin, Foias, and Temam (1988), Douady and Oesterlé (1980), Eden (1988), Eden, Foias, and Kalantarov (1998), Eden, Foias, and Temam (1991), Eden, Michaux, and Rakotoson (1991), Farmer, Ott, and Yorke (1983), Foias, Manley, and Temam (1987), Foias and Temam (1979, 1984, 1988a, 1988b), Fusco and Hale (1989), Ghidaglia (1988b), Ghidaglia and Héron (1987), Ghidaglia, Marion, and Temam (1988), Ghidaglia and Temam (1988a, 1988b, 1990), Hale (1988), Ikeda and Matsumoto (1986, 1987), Kaplan, Mallet-Paret, and Yorke (1984), Ladyzhenskaya (1982), Ledrappier (1981), Lieb (1984), Mallet-Paret (1976), Mandlebrot (1977), Mañé (1981), Manley and Marion (1992), Marion (1987, 1989d), Sell (1989), Sell and You (1998), Temam (1988a), Thieullon (1992), and Yan (1992).

[2] Also see Reaction Diffusion Equations
[3] Also see Chaotic Behavior
[4] Also see Inertial Manifolds: Infinite Dimensional Theory

Ergodic Theory. Anosov and Sinai (1967), L Arnold and Kedai (1992, 1993), L Arnold and San Martin (1989), V I Arnold and Avez (1968), Avez (1966), Bowen (1970a, 1970b), Bowen and Ruelle (1975), Bunimovich and Sinai (1988), Cornfeld, Fomin, and Sinai (1982), Crauel (1981), Dahlke (1997), Donnay (1988a, 1988b), Dumas (1991), Eckman and Ruelle (1985), Furstenberg (1960, 1961, 1963, 1967), Haraux (1983a), Herman (1981), **Hopf (1937)**, Johnson (1978a, 1980a, 1982, 1987), Johnson and Moser (1982), Johnson, Palmer, and Sell (1987), Katok (1980), Kotani (1982), Liao (1966, 1973), Mezić and Wiggins (1993), Millionščikov (1968), Nerurkar (1988), Oseledec (1968), Pesin (1977), Pesin and Sinai 1982), Pugh and Shub (1989), Ruelle (1979, 1989), Shimada and Nagashima (1979), Sinai (1973), and **Wiener and Wintner (1941)**.

Exponential Dichotomy; Exponential Trichotomy. L Arnold and Kedai (1992), Ben-Artzi, Gohberg, and M A Kaashoek (1993), Chow and Leiva (1994, 1995, 1996), Chow and Yi (1994), Coffman and Schäffer (1971), Coppel (1965, 1967, 1968, 1978), Johnson (1978a, 1978b, 1979, 1980a, 1980b, 1980c, 1982, 1986, 1987, 1989), Johnson and Nerurkar (1991b), Johnson and Sell (1981), Johnson and Yi (1994), Kopell, Zhang, and Ermentrout (1990) Kurzweil (1972), Laederich (1988), Latushkin (1994), Latushkin, Randolph, and Schnaubelt (1996), Leiva (1996), Magalhães (1987), Massera and Schäffer (1966), Millionščikov (1968, 1978, 1985, 1986a), Palmer (1984, 1987), Pecelli (1971, 1974), **Perron (1928, 1930b)**, Pliss (1971a), Rau (1994), Rodrigues and Silveira (1988), Sacker (1978), Sacker and Sell (1974b, 1976a, 1976b, 1977, 1978, 1980, 1994), Schäffer (1971), Selgrade (1975), Yi (1993a, 1993b), and Zhang (1995).

Hamiltonian Dynamics. [5] V I Arnold, Kozlov, and Neishtadt (1988), Ashbaugh, Chicone, and Cushman (1991), Aubry and Le Daeron (1983), Baider, Churchill, and Rod (1990), Benci and Rabinowitz (1988), Buffoni, Groves, and Toland (1995), Cazenave, Haraux, and Weissler (1993a, 1993b), Conley (1969), Conley and Zehnder (1983, 1984), Douady (1988), Ellison, Kummer, and Sáenz (1993), Fernandes (1994), Floer and Zehnder (1988), Fröhlich, Spencer, and Wayne (19**), Giorgilli, Delshams, Fontich, Galgani, and Simó (1989), Golubitsky and Stewart (1987), Graff (1974), Hall (1984), Haller and Wiggins (1993), Harris (1968), Henrard (1973), Holmes and Veerman (1985), Johnson and Nerurkar (1991b), Knobloch and Vanderbauwhede (1996), **Kolmogorov (1954)**, Kovačič (1993), Leung and Meyer (1975), Lewis (1992), Markus and Meyer (1980), Markus and Sell (1968, 1974), Marsden, Ratiu, and Raugel (1989), Mather (1982), McGehee and Meyer (1974), Meyer (1981, 1984b), Meyer and Hall (1992), Meyer and Schmidt (1986), Mielke, Holmes, and O'Rielly (1992), Montaldi, Roberts, and Stewart (1988), **Moser (1956)**, Murdock (1975), Robinson (1988), Rod (1973), Roels (1971a, 1971b), Rosenau and Hyman (1992), Saari (1973), Schmidt and Sweet (1973), Sevryuk (1986) Sweet (1973), Vanderbauwhede (1989b), van der Meer (1985), Veerman and Holmes (1985), Wan (1992), and Zehnder (1973).

Homoclinic Behavior; Heteroclinic Orbits. [6] Battelli (1994), Beigie, Leonard, and Wiggins (1989), Buffoni, Groves, and Toland (1995), Chernyshev (1985, 1986, 1992), Chow, Deng, and Fiedler (1990), Chow and Hale (1982), Chow, Hale, and Mallet-Paret (1980), Deng (1989, 1993), Easton and McGehee (1979), Ellison, Kummer, and Sáenz (1993), Friedman and Doedel (1993), Hale and Lin (1986a, 1986b), Haller and Wiggins (1993), Kisaki, Kokubu, and Oka (1993), Kovačič (1993), Lani-Wayda (1995), Li and Rousseau (1989), McGehee and Meyer (1974), Mielke, Holmes, and O'Rielly (1992), Mischaikow (1989), Mischaikow and Hattori (1990), Pelikan and Wan (1992), Ragazzo (1994), Sandstede (1997), Steinlein and Walther (1990), Xia (1993), and Zehnder (1973).

Inertial Manifolds and Finite Dimensional Structures. Babin (1993a), Bae, Luskin, and Sell (1996), Baek, Ju, and Kwak (1993), Bates and Lu (1994), Bates, Lu, and Zeng (1996), Bates and Zheng (1992), Brunovský (1990), Brunovský and Tereščák (1991), Carvalho (1995), Carvalho and Cuminato (1997), Castañeda and Rosa (1996), Chow and Lu (1988a), Chow, Lu, and Sell (1992), Christofides and Daoutidis (1997), Constantin (1989), Constantin, Foias, Nicolaenko, and Temam (1988, 1989), Debussche (1989), Demengel and Ghidaglia (1988), Doering, Gibbon, Holm, and Nicolaenko (1988a), Fabes, Luskin, and Sell (1991), Foias, Jolly, Kevrekidis, Sell, and Titi (1988), Foias, Nicolaenko, Sell, and Temam (1988), Foias, Sell, and Temam (1988), Foias, Sell, and Titi (1989), Foias and Titi (1991), Ghidaglia (1989), Henry (1981), Jolly (1989), Jolly, Kevrekidis,

[5] Also see KAM Theory

[6] Also see Chaotic Behavior and Damped Conservative Systems

and Titi (1989, 1991), D Jones, Margolin, and Titi (1993), D Jones and Stuart (1993), Kamaev (1981), Kwak (1992a, 1992b), Kwak, Sell, and Shao (1994), Luskin and Sell (1988), Magalhães (1987), Mallet-Paret and Sell (1988), Mallet-Paret, Sell, and Shao (1993), Mañé (1977), Marion (1989a, 1989b, 1989c), Mielke (1991), Miklavčič (1991), Mora (1983, 1988), Mora and Solà-Morales (1987, 1988), Morita (1990), Morita and Jimbo (1992), Morita, Ninomiya, and Yanagida (1992), Nicolaenko, Scheurer, and Temam (1989), Pliss and Sell (1993), Robinson (1993), Rodriguez-Bernal (1990, 1991a, 1991b), Sell (1993), Sell and You (1992, 1998), Shao (1994), Taboada (1988b, 1990), Temam (1988a, 1989b, 1990), Temam and Wang (1993), Titi (1990), and Wolansky (1994).

Invariant Manifolds: Finite Dimensional Theory. V I Arnold (1963), Bibikov (1983), Bibikov and Fusco (1993), Bibikov and Pliss (1967), Bogoliubov and Mitropolskii (1963), Buescu (1994), Bushard (1972), Campbell, Bélair, Ohira, and Milton (1995), Chenciner and Iooss (1979), Chow and Lu (1988c), Chow, Liu, and Yi (1996), Dahlke (1997), de la Llave and Wayne (1989), Diliberto (1960, 1961), Fenichel (1971, 1979), Flockerzi (1984), Gardner (1993), Graff (1974), Hale (1961), Hale and Stokes (1960), Harrison (1988), Hartman (1964), Hirsch and Pugh (1970), Hirsch, Pugh, and Shub (1977), Jarník and Kurzweil (1969), Johnson, Pan, and Yi (1993a, 1993b, 1994), Kopell, Zhang, and Ermentrout (1990), Kurzweil (1966a, 1966b), Lieberman (1972), Marsden (1988), Mather (1988), Montandon (1972), Moser (1962, 1967), Osinga (1996), Osipenko and Ershov (1993), Pliss (1966c), Sacker (1964, 1965, 1969), Sacker and Sell (1980), Schweitzer (1974), Seifert (1963), Sell (1977, 1979), Sell and You (1998), Sethna, Meyer and Bajaj (1985), Wiggins (1994), and Yi (1993a, 1993b).

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[8] Also see Hamiltonian Dynamics

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[10] Also see Quasi Periodicity, Almost Periodicity

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