

LIST OF SCIENTIFIC PUBLICATIONS BY F. CALOGERO

Book Reviews

BR1) F. Calogero, review of "*Group-Theoretical Methods for Integration of Nonlinear Dynamical Systems*", by A.N. Leznov and M.V. Saveliev", *Nuovo Cimento* **109B**, 333-334 (1994).

BR2) F. Calogero, "Book reviews: Masao Nagasawa, *Schroedinger Equations and Diffusion Theory*; David Wick (with a mathematical appendix by William Farris), *The Infamous Boundary Seven Decades of Controversy in Quantum Physics*; Luis de la Pena and Ana Maria Cetto, *The Quantum Dice - An Introduction to Stochastic Electrodynamics*". *J. Nonlinear Math. Phys.* **7**, R1-R4 (2000).

BR3) F. Calogero, "Book reviews: Garth Baker and Alexandre Freire, editors, *Nonlinear Partial Differential Equations in Geometry and Physics -- The 1995 Barrett Lectures*; V. I. Arnold, I. M. Gelfand, M. Smirnov and V. S. Retakh, editors, *Arnold-Gelfand Mathematical Seminars - Geometry and Singularity Theory*; Tiberiu Constantinescu, *Schur Parameters, Factorization and Dilation Problems*; Yuri Egorov and Vladimir Kondratiev, *On Spectral Theory of Elliptic Operators*; H. Dym, B. Fritzsche, V. Katsnelson and B. Kirstein, *Topics in Interpolation Theory*; Wolfgang Hackbusch, *Integral Equations -- Theory and Numerical Treatment*; Ram. P. Kanwal, *Linear Integral Equations -- Theory & Technique*. *J. Nonlinear Math. Phys.* **7**, R38-R41 (2000).

BR4) F. Calogero, "Book reviews: I. M. Gelfand, M. M. Kapranov and A. V. Zelevinsky, *Discriminants, Resultants, and Multidimensional determinants*; Victor Ya. Frenkel, *Yakov Ilich Frenkel -- His work, life and letters*; Richard H. Cushman and Larry M. Bates, *Global Aspects of Classical Integrable Systems*; Bert Fristedt and Lawrence Gray, *A Modern Approach to Probability Theory*. *J. Nonlinear Math. Phys.* **7**, R42-R45 (2000).

Scientific papers

1) L. M. Brown and F. Calogero, "Effects of Pion-Pion Interaction in Electromagnetic Processes", *Phys.Rev.Lett.***4**, 316-317 (1960).

2) L. M. Brown and F. Calogero, "Pion-Pion Interaction in Electromagnetic Processes", *Phys.Rev.***120**, 653-658 (1960).

3) F. Calogero and C. Zemach, "Particle Creation in Electron-Electron Collisions", *Phys.Rev.***120**, 1860-1866 (1960).

4) F. Calogero, "Non-Local Transformations and Non-Local Conservation Laws for Free Fields", *Nuovo Cimento* **20**, 297-315 (1961).

5) F. Calogero, "Covariant Spin Operators and Associated Conservation Laws for a Spinor Field", *Nuovo Cimento* **20**, 280-296 (1961).

6) F. Calogero, "Modified Lee Models and the Field-Theoretical Definition of Elementary Particle", *Nuovo Cimento* **24**, 614-656 (1962).

7) A. O. Barut and F. Calogero, "Singularities in Angular Momentum of the Scattering Amplitude for a Class of Soluble Potentials", *Phys.Rev.***128**, 1383-1393 (1962).

8) F. Calogero, "A Novel Approach to Elementary Scattering Theory", *Nuovo Cimento* **27**, 261-302 (1963).

9) F. Calogero, "A Variational Principle for Scattering Phase Shifts", *Nuovo Cimento* **27**, 947-951 (1963).

10) F. Calogero, "The Scattering of a Dirac Particle on a Central Scalar Potential", *Nuovo Cimento* **27**, 1007-1016 (1963).

11) F. Calogero, "Maximum and Minimum Principle in Potential Scattering", *Nuovo Cimento* **28**, 320-333 (1963).

12) F. Calogero, "Note on the Riccati Equation", *J.Math.Phys.***4**, 427-430 (1963).

- 13) F. Calogero, "Analytic Continuation and Asymptotic Behavior in Angular Momentum of the Scattering Matrix in Potential Scattering", *Nuovo Cimento* **28**, 66-67 (1963).
- 14) F. Calogero, "Asymptotic Behavior of the S-Matrix in Potential Scattering for Large Imaginary Values of Angular Momentum", *Nuovo Cimento* **28**, 761-772 (1963).
- 15) F. Calogero, J. M. Charap and E. J. Squires, "The Continuation in Total Angular Momentum of Partial-Wave Scattering Amplitudes for Particles with Spin", *Annals of Physics* **25**, 325-339 (1963).
- 16) F. Calogero and J. M. Charap, "Analyticity Properties in Energy of the Complex-J Partial Wave Amplitude in the Scattering of Particles with Spin", *Annals of Physics* **26**, 44-54 (1964).
- 17) F. Calogero and J. M. Charap, "On the Born Approximation in the Potential Scattering of Particles with Arbitrary Spin", *Annals of Physics* **26**, 55-71 (1964).
- 18) F. Calogero, "Perturbation Theory and Nonanalyticity in the Coupling Constant in a Field-Theoretical Model", *Nuovo Cimento* **30**, 916-930 (1963).
- 19) F. Calogero, J. M. Charap and E. J. Squires, "Complex Angular Momentum in Many-Channel Problems", in *Rendiconti della Conferenza Internazionale di Siena sulle Particelle Elementari*, a cura della Società Italiana di Fisica, Bologna, 1963, vol.I, pagg.416-419.
- 20) F. Calogero and J. M. Charap, "Asymptotic Behavior for Large Imaginary Values of Angular Momentum of the Amplitude for the Scattering of a Dirac Particle on a Central Scalar Potential", *Nuovo Cimento* **32**, 1665-1684 (1964).
- 21) F. Calogero and D. G. Ravenhall, "A Generalization of the Phase Approach to Scattering Theory, and Some Numerical Results", *Nuovo Cimento* **32**, 1755-1771 (1964).
- 22) F. Calogero, "Generalization of the Phase Method to the Scattering on Nonlocal Potentials", *Nuovo Cimento* **33**, 352-360 (1964).
- 23) F. Calogero, "Approximation for the Phase Shifts Produced by Repulsive Potentials Strongly Singular in the Origin", *Phys.Rev.* **135**, B693-B700 (1964).
- 24) F. Calogero, "Sufficient Conditions for an Attractive Potential to Possess Bound States", *J.Math.Phys.* **6**, 161-164 (1965).
- 25) F. Calogero and M. Cassandro, "Asymptotic Nature of the Perturbative Expansion for the Scattering Parameters due to a Potential which Behaves in the Origin as $gr^{-2}\ln(R/r)$ ", *Nuovo Cimento* **34**, 1712-1718 (1964).
- 26) F. Calogero, "Necessary Conditions for the Existence of Bound States", *Nuovo Cimento* **36**, 199-201 (1965).
- 27) F. Calogero, "Sufficient Conditions for an Attractive Potential to Possess Bound States. II", *J.Math.Phys.* **6**, 1105-1107 (1965).
- 28) F. Calogero, "Upper and Lower Limits for the Number of Bound States in a Given Central Potential", *Commun. Math. Phys.* **1**, 80-88 (1965).
- 29) F. Calogero, "A Simple Approximation for the Scattering Length Produced by Repulsive Potentials Strongly Singular in the Origin", *Nuovo Cimento* **37**, 756-759 (1965).
- 30) F. Calogero and M. Cassandro, "Exponentially Singular Potentials and Peratization", *Nuovo Cimento* **37**, 760-764 (1965).
- 31) F. Calogero, "Singular Potentials and Regularization", *Phys. Rev.* **139**, B602-B606 (1965).
- 32) F. Calogero and D. M. Fradkin, "Integral Expressions for the Difference between Contiguous Dirac Phase Shifts", *Nuclear Physics* **75**, 470-474 (1966).
- 33) D. M. Fradkin and F. Calogero, "Integral Expressions for Arbitrary Phase Shift Differences", *Nuclear Physics* **75**, 475-480 (1966).
- 34) F. Calogero and M. B. De Stefano, "Systematic Iterative Approach to the Problem of Scattering on Singular Potentials", *Phys. Rev.* **146**, 1195-1201 (1966).

- 35) F. Calogero and G. Cosenza, "Properties of Bound States and Regge Poles Derivable from Modified Wronskian Relations", *Nuovo Cimento* **45**, 867-881 (1966).
- 36) F. Calogero and G. Jagannathan, "Levinson's Theorem for Energy-Dependent Potentials", *Nuovo Cimento* **47**, 178-188 (1967).
- 37) F. Calogero, "*Variable Phase Approach to Potential Scattering*", Academic Press, New York, 1967, pp.244.
- 38) F. Calogero and A. Degasperis, "Values of the Potential and Its Derivatives at the Origin in Terms of the S-Wave Phase Shift and Bound State Parameters", *J.Math.Phys.* **9**, 90-116 (1968).
- 39) F. Calogero, O. D. Corbella, A. Degasperis and M.B. De Stefano, "Variational Bounds for the Potential in Terms of the S-Wave Phase Shift", *J.Math.Phys.* **9**, 1002-1006 (1968).
- 40) F. Calogero, "Solution of Infinite Systems of Differential Equations of Possible Interest in Evolutionary Theories", *J.Theoret.Biol.* **19**, 79-89 (1968).
- 41) F. Calogero, "Variable Phase Approach to Potential Scattering", in: *Scattering Theory* (A.O. Barut, ed.), Gordon and Breach, New York, 1969, pp.3-45.
- 42) F. Calogero, "Singular Potentials", in: *Scattering Theory* (A.O. Barut, ed.), Gordon and Breach, New York, 1969, pp.47-52.
- 43) F. Calogero and J. R. Cox, "Evaluation of the Potential and the S-Wave Scattering Amplitude from the Discontinuity of the Latter Across Its Left-Hand Cut", *Nuovo Cimento* **55A**, 786-808 (1968).
- 44) F. Calogero and Yu. A. Simonov, "Upper Bound to the Ground-State Energy of N-Body Systems and Conditions on the Two-Body Potentials Sufficient to Guarantee the Existence of Many-Body Bound States", *Phys.Rev.* **169**, 789-793 (1968).
- 45) F. Calogero and Yu. A. Simonov, "Lower Bound to the Ground-State Energy of N-Body Systems and Conditions on the Two-Body Potentials Necessary for the Existence of N-Body Bound States", *Nuovo Cimento* **56B**, 71-82 (1968).
- 46) F. Calogero, "Remark on the Paper <<An Exact Formula for the Phase Shifts>>", *Nuovo Cimento* **53A**, 1052 (1968).
- 47) D. Atkinson and F. Calogero, "Approximate Bounds on Coupling Constants from Analyticity Crossing and Unitarity", *Phys.Rev.* **171**, 1767-1772 (1968).
- 48) F. Calogero and C. Marchioro, "Lower Bounds to the Ground-State Energy of Systems Containing Identical Particles", *J.Math.Phys.* **10**, 562-569 (1969).
- 49) F. Calogero and Yu. A. Simonov, "Simple Upper Bound to the Ground-State Energy of a Many-Body System and Condition on the Two-Body Potential Necessary for Its Stability", *Phys.Rev.* **183**, 869-872 (1969).
- 50) F. Calogero, "Solution of a Three-Body Problem in One Dimension", *J.Math.Phys.* **10**, 2191-2196 (1969).
- 51) D. Atkinson and F. Calogero, "Construction of the S-Matrix from Its Left-Hand-Cut Discontinuity, When the Latter is Asymptotically Unbounded", *Phys.Rev.* **185**, 1702-1716 (1969).
- 52) F. Calogero, "Ground State of a One-Dimensional N-Body System", *J.Math.Phys.* **12**, 2197-2200 (1969).
- 53) D. Atkinson, L. A. Balazs, F. Calogero, P. Di Vecchia, A. Grillo and M. Lusignoli, "Toward a Unitarization of the Veneziano Model", *Phys.Letters* **29B**, 423-425 (1969).
- 54) F. Calogero, "Remark on the Paper <<Correct Asymptotic Behaviour of the Partial-Wave Amplitude>>", *Nuovo Cimento* **63A**, 915-917 (1969) [Erratum in: *Nuovo Cimento* **64A**, 1082 (1969)].
- 55) F. Calogero and Yu. A. Simonov, "Necessary Conditions for Saturation of Nuclear Forces", *Nuovo Cimento* **64B**, 337-355 (1969).
- 56) A. M. Badalyan, F. Calogero and Yu. A. Simonov, "The Hyperspherical- Expansion Approach to Nuclear Bound States. I", *Nuovo Cimento* **68A**, 572-590 (1970).

- 57) F. Calogero, "Equivalence between Velocity-Dependent Potentials and Static Potentials", *Lettere Nuovo Cimento* **2**, 553-560 (1969).
- 58) F. Calogero and Yu. A. Simonov, "The Hyperspherical-Expansion Approach to Nuclear Bound States. II", *Nuovo Cimento* **67A**, 641-657 (1970).
- 59) F. Calogero, "Solution of the One-Dimensional N-Body Problem with Quadratic and/or Inversely Quadratic Pair Potentials", *J.Math.Phys.* **12**, 419-436 (1971); Erratum: *J.Math.Phys.* **37**, 3646 (1996).
- 60) F. Calogero and Yu. A. Simonov, "Positivity Conditions for Velocity-Dependent and Quadratic Spin-Orbit Potentials", *Phys.Rev.Lett.* **25**, 881-884 (1970).
- 61) F. Calogero and Yu. A. Simonov, "Necessary Conditions for Saturation of Nuclear Forces", *Lett. Nuovo Cimento* **4**, 219-225 (1970).
- 62) F. Calogero, "Nuclear Forces and Saturation", in: *Problems of Nuclear Physics*, Proceedings of the Second Problem Symposium on Nuclear Physics (Novosibirsk, June 1970), Nauka, Moscow, 1971, pp.102-127.
- 63) F. Calogero, Yu. A. Simonov and E. L. Surkov, "The Hyperspherical-Expansion Approach to Nuclear Bound States. III. The Limit of Large A", *Nuovo Cimento* **1A**, 739-758 (1971).
- 64) F. Calogero, "*Metod Fazovich Funczii v Teorii Potelziannovo Rasseiania*", Mir, Moskva, 1972, pp.292. (F.Calogero, "*The Method of the Phase Function in the Theory of Potential Scattering*", Mir, Moscow 1972; this is the Russian translation of item 37) above, with minor revisions and additions, and an updated bibliography).
- 65) F. Calogero and C. Marchioro, "Exact Ground State of Some One-Dimensional N-Body Systems with Inverse ("Coulomb-Like") and Inverse-Square ("Centrifugal") Pair Potentials", *Phys.Rev.Lett.* **27**, 86-88 (1971).
- 66) F. Calogero, A. D'Andrea, E. Olivieri, O. Ragnisco, M. Scalia, Yu. A. Simonov and E. L. Surkov, "The Hyperspherical-Expansion Approach to Nuclear Bound States. IV. The Limit of Large A for Velocity-Dependent Potentials", *Nuovo Cimento* **14A**, 445-476 (1973).
- 67) F. Calogero and C. Marchioro, "Exact Bound States of Some N-Body Systems with Two - and Three-Body Forces", *J.Math.Phys.* **14**, 182-184 (1973).
- 68) F. Calogero, "Explicit Expressions of the Potential and its Derivatives at the Origin in Terms of the Scattering Data", *Proceedings of the Workshop on the Mathematics of Profile Inversion* (NASA-Ames Research Center, California, June 1971), Session 5, pp.33-80.
- 69) F. Calogero, "The Hyperspherical Expansion Approach to Nuclear Bound States", mimeographed notes by L.Lanoze and T.H.Seligman of lectures given at the Latin-American Summer School (ELAF, Mexico, 1971).
- 70) F. Calogero, Yu. A. Simonov and E. L. Surkov, "Sufficient Conditions for Saturation of Nuclear Forces", *Phys.Rev.* **5**, 1493-1508 (1972).
- 71) F. Calogero, "Nonlinear Lee Model. II", *J.Math.Phys.* **14**, 1692-1705 (1973).
- 72) F. Calogero and A. Degasperis, "Generalized Nonlinear Lee Model and Infinity Suppression due to Nonlinearity", *Lett. Nuovo Cimento* **4**, 661-670 (1972).
- 73) F. Calogero and D. Levi, "One-Boson-Exchange Potentials and Nuclear Structure", *Phys.Rev.* **C8**, 83-92 (1973).
- 74) F. Calogero and C. Ciofi degli Atti (editors), *The Nuclear Many-Body Problem*, Proceedings of the Symposium on "Present Status and Novel Developments in the Nuclear Many-Body Problem" (Rome, September 1972), Editrice Compositori, Bologna, 1974, vols. I & II, pp.887 & 768.
- 75) F. Calogero and Yu. A. Simonov, "Rigorous Constraints that Nuclear Forces Must Satisfy to be Consistent with the Saturation Property of Nuclear Binding Energies", in: *The Nuclear Many-Body Problem* (F. Calogero and C. Ciofi degli Atti, editors), Proceedings of the Symposium on "Present Status and Novel Developments in the

- Nuclear Many-Body Problem" (Rome, September 1972), Editrice Compositori, Bologna, 1974, vol.I, pp.51-123.
- 76) F. Calogero, E. Olivieri, O. Ragnisco, M. Scalia, Yu. A. Simonov, E. L. Surkov, "The Hyperspherical-Expansion Approach to Nuclear Bound States. V. The Limit of Large A for Nonlocal Potentials", *Nuovo Cimento* **14A**, 477-500 (1973).
- 77) F. Calogero, "Tensor-Bound and Spin-Orbit-Bound Nuclear Matter and Nuclei", in: *The Nuclear Many-Body Problem* (F. Calogero and C. Ciofi degli Atti, editors), Proceedings of the Symposium on "Present Status and Novel Developments in the Nuclear Many-Body Problem" (Rome, September 1972), Editrice Compositori, Bologna, 1974, vol.II, pp.535-566.
- 78) F. Calogero and F. Palumbo, "Spin-Orbit-Bound Nuclei", *Phys. Rev.* **C7**, 2219-2228 (1973).
- 79) F. Calogero and F. Palumbo, "Nuclear Binding by the One-Pion-Exchange Potential", *Lett. Nuovo Cimento* **6**, 663-667 (1973).
- 80) F. Calogero and C. Marchioro, "A Comment on the Paper <<Lower Bounds on the Energy Eigenvalues of Systems Containing Identical Particles>>", *J.Math.Phys.* **15**, 139-140 (1974).
- 81) F. Calogero and C. Marchioro, "Exact Solution of a One-Dimensional 3-Body Scattering Problem with 2-Body and/or 3-Body Inverse-Square Potentials", *J.Math.Phys.* **15**, 1425-1430 (1974).
- 82) F. Calogero and A. Degasperis, "Comparison between the Exact and the Hartree Solutions of a One-Dimensional Many-Body Problem", *Phys.Rev.* **11A**, 265-269 (1975).
- 83) F. Calogero and Yu. A. Simonov, "Size of Barely-Bound Many-Body Systems", *Phys.Rev.Lett.* **33**, 436-439 (1974).
- 84) F. Calogero and D. De Santis, "Many-Body Forces in Exactly Solvable Field-Theoretical Models", *Czechoslovak Jour.Phys.* **25B**, 288-301 (1975).
- 85) F. Calogero and F. Palumbo, "Convergence of the Perturbative Approach to the N-Body Problem in the $N \rightarrow \infty$ Limit", *J.Math. Phys.* **16**, 2103-2105 (1975).
- 86) F. Calogero and A. Degasperis, "The Nonlinear Schroedinger Equation in One Dimension as a Solvable Model Displaying Certain Basic Features of the Many-Body Problem in the Thermodynamical Limit", *Nuovo Cimento* **33B**, 467-507 (1976).
- 87) F. Calogero, F. Palumbo and O. Ragnisco, "Density Fluctuations in Nuclear Matter", *Nuovo Cimento* **29B**, 509-547 (1975).
- 88) F. Calogero, C. Marchioro and O. Ragnisco, "Exact Solution of the Classical and Quantal One-Dimensional Many-Body Problems with the Two-Body Potential $V_a(x)=g^2a^2/\sinh^2(ax)$ ", *Lett. Nuovo Cimento* **13**, 383-387 (1975).
- 89) F. Calogero, "Exactly Solvable One-Dimensional Many-Body Problems", *Lett. Nuovo Cimento* **13**, 411-416 (1975)
- 90) F. Calogero, "One-Dimensional Many-Body Problems with Pair Interactions Whose Exact Ground-State Wave Function is of Product Type", *Lett. Nuovo Cimento* **13**, 507-511 (1975).
- 91) F. Calogero, "Generalized Wronskian Relations: a Novel Approach to Bargmann-Equivalent and Phase-Equivalent Potentials", in: *Studies in Mathematical Physics* (Essays in Honor of Valentine Bargmann), edited by E. H. Lieb, B. Simon and A. S. Wightman, Princeton University Press, 1976, pp.107-150.
- 92) F. Calogero, "A Method to Generate Solvable Nonlinear Evolution Equations", *Lett. Nuovo Cimento* **14**, 443-448 (1975).
- 93) F. Calogero, "Generalized Wronskian Relations, One-Dimensional Schroedinger Equation and Nonlinear Partial Differential Equations Solvable by the Inverse-Scattering Method", *Nuovo Cimento* **31B**, 229-249 (1976).

- 94) F. Calogero, "Bäcklund Transformations and Functional Relation for Solutions of Nonlinear Partial Differential Equations Solvable via the Inverse Scattering Method", Lett. Nuovo Cimento **14**, 537-543 (1975).
- 95) F. Calogero and A. Degasperis, "Nonlinear Evolution Equations Solvable by the Inverse Spectral Transform Associated with the Multichannel Schroedinger Problem, and Properties of their Solutions", Lett. Nuovo Cimento **15**, 65-69 (1976).
- 96) F. Calogero and A. Degasperis, "Nonlinear Evolution Equations Solvable by the Inverse Spectral Transform. I." Nuovo Cimento **32B**, 201-242 (1976).
- 97) F. Calogero, "Exactly Solvable Two-Dimensional Many-Body Problems", Lett. Nuovo Cimento **16**, 35-38 (1976).
- 98) F. Calogero, "On a Functional Equation Connected with Integrable Many-Body Problems", Lett. Nuovo Cimento **16**, 77-80 (1976).
- 99) F. Calogero, "A Sequence of Lax Matrices for Certain Integrable Hamiltonian Systems", Lett. Nuovo Cimento **16**, 22-24 (1976).
- 100) F. Calogero and A. Degasperis, "Transformations between Solutions of Different Nonlinear Evolution Equations Solvable via the Same Inverse Spectral Transform, Generalized Resolvent Formulas and Nonlinear Operator Identities", Lett. Nuovo Cimento **16**, 181-186 (1976).
- 101) F. Calogero and A. Degasperis, "Coupled Nonlinear Evolution Equations Solvable via the Inverse Spectral Transform and Solitons that Come Back: the Boomeron", Lett. Nuovo Cimento **16**, 425-433 (1976).
- 102) F. Calogero and A. Degasperis, "Bäcklund Transformations, Nonlinear Superposition Principle, Multisoliton Solutions and Conserved Quantities for the "Boomeron" Nonlinear Evolution Equation", Lett. Nuovo Cimento **16**, 434-438 (1976).
- 103) F. Calogero and A. Degasperis, "Nonlinear Evolution Equations Solvable by the Inverse Spectral Transform. II", Nuovo Cimento **39B**, 1-54 (1977).
- 104) F. Calogero and A. Degasperis, "Nonlinear Evolution Equations Solvable by the Inverse Spectral Transform Associated to the Matrix Schroedinger Equation", in Solitons (R.K.Bullough and P.J.Caudrey, editors), Topics in Current Physics 17, Springer, 1980, pp.301-324.
- 105) F. Calogero, Yu. A. Simonov and E. L. Surkov, "Two Remarks about the Computation of Nuclear Matter Energy in the Hyperspherical Basis", Lett. Nuovo Cimento **19**, 543-544 (1977).
- 106) F. Calogero and A. Degasperis, "Special Solution of Coupled Nonlinear Evolution Equations with Bumps that Behave as Interacting Particles", Lett. Nuovo Cimento **19**, 525-533 (1977).
- 107) F. Calogero, "On the Zeros of the Classical Polynomials", Lett. Nuovo Cimento **19**, 505-508 (1977).
- 108) F. Calogero, "Motion of Poles and Zeros of Special Solutions of Nonlinear and Linear Partial Differential Equations, and Related "Solvable" Many-Body Problems", Nuovo Cimento **43B**, 177-241 (1978).
- 109) F. Calogero, "Nonlinear Evolution Equations Solvable by the Inverse Spectral Transform", in: *Mathematical Problems in Theoretical Physics* (G. Dell'Antonio, S. Doplicher and G. Jona-Lasinio, editors), Proceedings of the International Conference held in Rome in June 1977, Lecture Notes in Physics **80**, Springer, 1978, pp. 235-269.
- 110) F. Calogero, "Equilibrium Configuration of the One-Dimensional N-Body Problem with Quadratic and Inversely-Quadratic Pair Potentials", Lett. Nuovo Cimento **20**, 251-253 (1977).
- 111) F. Calogero, "On the Zeros of Bessel functions", Lett. Nuovo Cimento **20**, 254-256 (1977).

- 112) F. Calogero, "On the Zeros of Hermite Polynomials", Lett. Nuovo Cimento **20**, 489-490 (1977).
- 113) F. Calogero, "On the Zeros of Bessel Functions. II", Lett. Nuovo Cimento **20**, 476-478 (1977).
- 114) F. Calogero and A. M. Perelomov, "Properties of Certain Matrices Related to the Equilibrium Configuration of the One-Dimensional Many-Body Problems with the Pair Potentials $V_1(x)=-\ln|\sin x|$ and $V_2(x)=1/\sin^2x$ ", Comm. Math. Phys. **59**, 109-116 (1978).
- 115) F. Calogero and A. M. Perelomov, "Some Diophantine Relations Involving Circular Functions of Rational Angles", Linear Algebra Appl. **25**, 91-94 (1979).
- 116) S. Ahmed and F. Calogero, "On the Zeros of Bessel Functions. III". Lett. Nuovo Cimento **21**, 311-314 (1978).
- 117) S. Ahmed, M. Bruschi and F. Calogero, "On the Zeros of Combinations of Hermite Polynomials", Lett. Nuovo Cimento **21**, 447-452 (1978).
- 118) S. Ahmed and F. Calogero, "On the Zeros of Bessel Functions. IV", Lett. Nuovo Cimento **21**, 531-534 (1978).
- 119) S. Ahmed and F. Calogero, "On the Zeros of Bessel Functions. V", Lett. Nuovo Cimento **21**, 535-536 (1978).
- 120) F. Calogero and A. Degasperis, "Extension of the Spectral Transform Method for Solving Nonlinear Evolution Equations", Lett. Nuovo Cimento **22**, 131-137 (1978).
- 121) F. Calogero and A. Degasperis, "Exact Solution via the Spectral Transform of a Nonlinear Evolution Equation with Linearly x -Dependent Coefficients", Lett. Nuovo Cimento **22**, 138-141 (1978).
- 122) F. Calogero and A. Degasperis, "Extension of the Spectral Transform Method for Solving Nonlinear Evolution Equations. II", Lett. Nuovo Cimento **22**, 263-269 (1978).
- 123) F. Calogero and A. Degasperis, "Exact Solution via the Spectral Transform of a Generalization with Linearly x -Dependent Coefficients of the Modified Korteweg-de Vries Equation", Lett. Nuovo Cimento **22**, 270-273 (1978).
- 124) F. Calogero and A. Degasperis, "Exact Solution via the Spectral Transform of a Generalization with Linearly x -Dependent Coefficients of the Nonlinear Schroedinger Equation", Lett. Nuovo Cimento **22**, 420-424 (1978).
- 125) F. Calogero and A. Degasperis, "Spectral Transform and Nonlinear Evolution Equations", in: *Applied Inverse Problems* (Lectures presented at the RCP 264 in Montpellier, December 1977), P. C. Sabatier (ed.), Lecture Notes in Physics **85**, Springer, 1979, pp.274-295.
- 126) F. Calogero (editor), *Nonlinear Evolution Equations Solvable by the Spectral Transform*, Proceedings of the Symposium on "Nonlinear Evolution Equations Solvable by the Inverse Spectral Transform" organized by the Accademia dei Lincei (Rome, June 1977), a volume in the Series "Research Notes in Mathematics", Pitman Publishing, London, 1978, pp.257.
- 127) F. Calogero and A. Degasperis, "Conservation Laws for Classes of Nonlinear Evolution Equations Solvable by the Spectral Transform", Comm.Math.Phys. **63**, 155-176 (1978).
- 128) F. Calogero, "Integrable Many-Body Problems", in: *Nonlinear Equations in Physics and Mathematics* (A. O. Barut, ed.), Proceedings of the Nato Advanced Study Institute held in Istanbul in August 1977, Reidel, Dordrecht, 1978, pp.3-53.
- 129) F. Calogero and A. Degasperis, "Inverse spectral problem for the one-dimensional Schroedinger equation with an additional linear potential", Lett. Nuovo Cimento **23**, 143-149 (1978).
- 130) F. Calogero and A. Degasperis, "Solution by the spectral transform method of a nonlinear evolution equation including as a special case the cylindrical KdV equation", Lett. Nuovo Cimento **23**, 150-154 (1978).

- 131) F. Calogero and A. Degasperis, "Conservation laws for a non-linear evolution equation that includes as a special case the cylindrical KdV equation", *Lett. Nuovo Cimento* **23**, 155-160, (1978).
- 132) F. Calogero, "Asymptotic behavior of the zeros of the (generalized) Laguerre polynomial $L_n^a(x)$ as the index $a \rightarrow \infty$ and limiting formula relating Laguerre polynomials of large index and large argument to Hermite polynomials", *Lett. Nuovo Cimento* **23**, 101-102 (1978).
- 133) F. Calogero, "Asymptotic behavior of the zeros of the Jacobi polynomials $P_n^{(a,b)}(x)$ as $t \rightarrow \infty$ and limit relations of these polynomials with Hermite polynomials", *Lett. Nuovo Cimento* **23**, 167-168 (1978).
- 134) S. Ahmed, M. Bruschi, F. Calogero, M. A. Olshanetsky and A. M. Perelomov, "Properties of the zeros of the classical polynomials and of Bessel functions", *Nuovo Cimento* **49B**, 173-199 (1979).
- 135) F. Calogero, "Spectral transform and nonlinear evolutions equations" in: *Nonlinear Problems in Theoretical Physics* (A. F. Ranada, editor), Proceedings of the IX GIFT International Seminar on Theoretical Physics, Lecture Notes in Physics 98, Springer, 1979, pp.29-34.
- 136) F. Calogero and A. M. Perelomov, "Asymptotic density of the zeros of Hermite polynomials of diverging order, and related properties of certain singular integral operators", *Lett. Nuovo Cimento* **23**, 650-652 (1978).
- 137) F. Calogero, M. A. Olshanetsky and A. M. Perelomov, "Rational solutions of the KdV equation with damping", *Lett. Nuovo Cimento* **24**, 97-100 (1979).
- 138) F. Calogero and A. M. Perelomov, "Asymptotic density of the zeros of Laguerre and Jacobi polynomials", *Lett. Nuovo Cimento* **23**, 653-656 (1978).
- 139) F. Calogero, "Singular integral operators with integral eigenvalues and polynomial eigenfunctions", *Nuovo Cimento* **51B**, 1-14 (1979); **53B**, 463 (1979).
- 140) F. Calogero, "Integral representation and generating function for the polynomials $U_n^{(a,b)}(x)$ ", *Lett. Nuovo Cimento* **24**, 595-600 (1979).
- 141) M. Bruschi and F. Calogero, "Eigenvectors of a matrix related to the zeros of Hermite polynomials", *Lett. Nuovo Cimento* **24**, 601-604 (1979).
- 142) F. Calogero and A. Degasperis, "Reduction technique for matrix nonlinear evolution equations", *J.Math.Phys.* **22**, 23-31 (1981).
- 143) F. Calogero, "Simple examples in singular perturbation theory: eigenvalues that do not tend to the unperturbed values as the perturbation is switched off", *Lett. Nuovo Cimento* **25**, 533-538 (1979).
- 144) F. Calogero, "Nonlinear evolution equations solvable by the spectral transform: some recent results", in: *Nonlinear Evolution Equations and Dynamical Systems* (M. Boiti, F. Pempinelli and G. Soliani, editors), Proceedings of the Lecce Meeting on Nonlinear evolution equations and dynamical systems, June 1979, Lecture Notes in Physics **120**, Springer, 1980, pp.1-14.
- 145) F. Calogero, "Solvable many-body problems and related mathematical findings (and conjectures)", in: *Bifurcation phenomena in mathematical physics and related topics* (C. Bardos and D. Bessis, eds.), Reidel, Dordrecht, 1980, pp.371-384.
- 146) F. Calogero, "Matrices, differential operators and polynomials", *J. Math.Phys.* **22**, 919-932 (1981).
- 147) F. Calogero, "Isospectral matrices and polynomials", *Nuovo Cimento* **58B**, 169-180 (1980).
- 148) F. Calogero and A. Degasperis, "Conserved quantities for generalized KdV equations", *Lett. Nuovo Cimento* **28**, 12-14 (1980).
- 149) F. Calogero, "Finite transformations of certain isospectral matrices", *Lett. Nuovo Cimento* **28**, 502-504 (1980).

- 150) F. Calogero, "Isospectral matrices and classical polynomials", *Linear Algebra Appl.* **44**, 55-60 (1982).
- 151) M. Bruschi and F. Calogero, "Finite-dimensional matrix representation of the operator of differentiation through the algebra of raising and lowering operators: general properties and explicit examples", *Nuovo Cimento* **62B**, 337-351 (1981).
- 152) F. Calogero, "Additional identities for certain isospectral matrices", *Lett. Nuovo Cimento* **30**, 342-344 (1981).
- 153) F. Calogero, "Integrable many-body problems and related mathematical results". In: *Proceedings of the 1980 Summer School on Fundamental Problems in Statistical Mechanics* (E. G. D. Cohen, editor), North Holland, 1981, pp.143-150.
- 154) F. Calogero, "Spectral transform and solitons: an introduction to a novel technique to solve (certain classes of) nonlinear evolution equations". In: *Proceedings of the 1980 Summer School on Fundamental Problems in Statistical Mechanics* (E. G. D. Cohen, editor), North Holland, 1981, pp.151-164.
- 155) F. Calogero and A. Degasperis, "*Spectral Transform and Solitons: Tools to Solve and Investigate Nonlinear Evolution Equations. Volume One*". North Holland, Amsterdam, 1982, pp.514.
- 156) F. Calogero, "Disproof of a conjecture", *Lett. Nuovo Cimento* **35**, 181-185 (1982).
- 157) F. Calogero, "Lagrangian interpolation and differentiation", *Lett. Nuovo Cimento* **35**, 273-278 (1983) & **36**, 447 (1983).
- 158) F. Calogero, "Integrable Dynamical Systems and Related Mathematical Results". In: *Nonlinear Phenomena (Proceedings of the CIFMO School and Workshop held at Oaxtepec, Mexico, Nov.29-Dec.17, 1982)*, *Lecture Notes in Physics* **189**, Springer, 1983, pp.47-109.
- 159) F. Calogero, "A solvable nonlinear wave equation", *Studies Appl. Math.* **70**, 189-199 (1984).
- 160) F. Calogero, "Computation of Sturm-Liouville eigenvalues via Lagrangian interpolation", *Lett. Nuovo Cimento* **37**, 9-16 (1983).
- 161) F. Calogero, "Spectral transform and solitons", in: *Statics and Dynamics of Nonlinear Systems* (G. Benedek, H. Bilz and R. Zeyher, editors), Springer Series in Solid-State Sciences **47**, Springer, Berlin, 1983, pp. 7-17.
- 162) F. Calogero, "Solvable many-body problems", in: *Statics and Dynamics of Nonlinear Systems* (G. Benedek, H. Bilz and R. Zeyher, editors), Springer Series in Solid-State Science **47**, Springer, Berlin, 1983, pp. 35-36.
- 163) F. Calogero, "Interpolation, differentiation and solution of eigenvalue problems in more than one dimension", *Lett. Nuovo Cimento* **38**, 453-459 (1983).
- 163bis) F. Calogero, "Linearization of the KdV equation by change of variables", preprint 378, Istituto di Fisica, Università di Roma "La Sapienza", 28 novembre 1983 (unpublished).
- 164) F. Calogero and A. Degasperis, "Elementary Bäcklund transformations, nonlinear superposition formulae and algebraic construction of solutions for the nonlinear evolution equations solvable by the Zakharov-Shabat spectral transform", *Physica* **14D**, 103-116 (1984).
- 165) F. Calogero, "Interpolation, differentiation and solution of eigenvalue problems for periodic functions", *Lett. Nuovo Cimento* **39**, 305-311 (1984).
- 166) F. Calogero, "Determinantal representations of the classical polynomials", *Bollettino U.M.I.* (6) 4-A, 407-414 (1985).
- 167) F. Calogero, "A remark on the Korteweg-de Vries equation", *Lett. Nuovo Cimento* **40**, 154-156 (1984).
- 168) F. Calogero, D. Levi and A. Verganelakis, "Second Workshop on nonlinear evolution equations and dynamical systems. The Orthodox Academy, Kolymbari near Chania, Crete; August 13-28, 1983. A short summary", *Physica* **11D**, 389-391 (1984).

- 168bis) F. Calogero, "Properties of the $n \times n$ matrix $\tilde{Z}_{jk} = \delta_{jk} \sum_{m=1, m \neq j}^n \cot(x_j - x_m) + (1 - \delta_{jk}) \cot(x_j - x_k)$ ", preprint 385, Istituto di Fisica, Università di Roma "La Sapienza", 9 gennaio 1984 (unpublished).
- 169) F. Calogero, "Some solvable dynamical systems", in: *Geometry Today (Giornate di Geometria, Roma 1984)*, E. Arbarello, C. Procesi, E. Strickland, eds., Birkhauser, Boston, 1985, pp. 39-45.
- 170) F. Calogero, "Interpolation and differentiation for periodic functions", *Lett. Nuovo Cimento* **42**, 106-110 (1985).
- 171) F. Calogero, "Some applications of a convenient finite-dimensional matrix representation of the differential operator", *Proceedings of the International Conference on "Special Functions: Theory and Computation"*, *Rend. Sem. Mat., Univ. & Polit. Torino*, October 1984 (special issue), pp. 23-61.
- 172) F. Calogero, "Determinantal representation of polynomials satisfying recurrence relations", in: *Polynomes Orthogonaux et Applications* (C. Brezinski, A. Draux, A. Magnus, P. Maroni, A. Ronveaux, editors), *Proceedings Bar-Le-Duc 1984, Lecture Notes in Mathematics* **1171**, Springer, Heidelberg, 1985, pp. 568-570.
- 173) F. Calogero and E. Franco, "Numerical tests of a novel technique to compute the eigenvalues of differential operators", *Nuovo Cimento* **89B**, 161-208 (1985).
- 174) F. Calogero and A. Degasperis, "A modified modified Korteweg-de Vries equation", *Inverse Problems* **1**, 57-66 (1985).
- 174bis) F. Calogero, "I solitoni". In: *Enciclopedia delle Scienze e della Tecnica Mondadori* (S&T79, annuario della EST), pp. 81-94 (1985) <preprint 446, Dipartimento di Fisica, Università di Roma "La Sapienza", 14 marzo 1985>.
- 175) F. Calogero, "A class of solvable dynamical systems", *Proceedings of the International Conference on Solitons and Coherent Structures, Santa Barbara, 11-16.1.1985*, *Physica* **18D**, 280-302 (1986).
- 176) F. Calogero, "A class of integrable dynamical systems", *Inverse Problems* **1**, L21-L24 (1985).
- 177) F. Calogero, "Integrable dynamical systems and some other mathematical results (remarkable matrices, identities, basic hypergeometric functions)", Notes of lectures presented at the summer school held at the Université de Montréal, July 29- August 16, 1985. In: *Systèmes Dynamiques Non Linéaires: Intégrabilité et Comportement Qualitatif* (P. Winternitz, ed.), SMS 102, Presses de l'Université de Montréal, 1986, pp.40-70.
- 178) F. Calogero, "Integrable many-body problems in more than one dimension", *Reports Math. Phys.* **24**, 141-143 (1986).
- 179) F. Calogero, "Spectral transform and solitons: tools to solve and investigate nonlinear evolution equations", *Proceedings of the International Conference on "Nonlinear Partial Differential Equations and Applications"*, L'Aquila, February 3-8, 1986.
- 180) F. Calogero and A. Degasperis, "*Spectralnie Preobrazovanya i Solitoni: Metodi Reshenya i Isledovanya Nielineinikh Evoluzionnikh Uravnenya*", Mir, Mosca, 1985, pp.469 (Russian version of item 155).
- 180bis) F. Calogero, "Diffusione da potenziale", voce quadro in: *Enciclopedia delle Scienze Fisiche*, Istituto della Enciclopedia Italiana (fondata da Giovanni Treccani), pp. 147-154 (1986) <preprint 504, Dipartimento di Fisica, Università di Roma "La Sapienza", 21 Aprile 1986>.
- 181) F. Calogero, "The evolution PDE $u_t = u_{xxx} + 3(u_{xx}u^2 + 3u_x^2u) + 3u_xu^4$ ", *J. Math. Phys.* **28**, 538-555 (1987).
- 182) M. Bruschi and F. Calogero, "The Lax representation for an integrable class of relativistic dynamical systems", *Commun. Math. Phys.* **109**, 481-492 (1987).

- 183) F. Calogero and W. Eckhaus, "Nonlinear evolution equations, rescalings, model PDEs and their integrability. I", *Inverse Problems* **3**, 229-262 (1987).
- 184) F. Calogero and W. Eckhaus, "Nonlinear evolution equations, rescalings, model PDEs and their integrability. II", *Inverse Problems* **4**, 11-33 (1988).
- 185) F. Calogero and W. Eckhaus, "Necessary conditions for integrability of PDEs", *Inverse Problems* **3**, L27-L32 (1987).
- 186) F. Calogero and P. C. Sabatier, "Nonlinear modulation of a transversally trapped mode", in: *Topics in Soliton Theory and Exactly Solvable Nonlinear Equations* (edited by M. Ablowitz, B. Fuchssteiner and M. Kruskal), Proceedings of the Conference on Nonlinear Evolution Equations, Solitons and the Inverse Scattering Transform in Oberwolfach, July 27-August 2, 1986; World Scientific, Singapore, 1987, pp.307-318.
- 187) F. Calogero and S. De Lillo, "The Eckhaus PDE $i\psi_t + \psi_{xx} + 2(|\psi|^2)_x \psi + |\psi|^4 \psi = 0$ ", *Inverse Problems* **3**, 633-681 (1987); **4**, 571 (1988).
- 188) F. Calogero and A. Maccari, "Equations of nonlinear Schroedinger type in 1+1 and 2+1 dimensions, obtained from integrable PDEs", in: *Inverse Problems: an Interdisciplinary Study* (edited by P. C. Sabatier), Proceedings of the Meeting on Inverse Problems, Montpellier, November 1986; Advances in Electronics and Electron Physics 19, Academic Press, 1987, pp.463-480.
- 189) M. Bruschi and F. Calogero, "General analytic solution of certain functional equations of addition type", *SIAM J.Math.Anal.* **21**, 1019-1030 (1990).
- 190) F. Calogero and S. De Lillo, "On the Eckhaus equation", in: *Nonlinear Evolutions* (edited by J. P. Leon), Proceedings of the Fourth Workshop on Nonlinear Evolution Equations and Dynamical Systems (NEEDS '87) held in Baraluc-les-Bains, June 1987; World Scientific, Singapore, 1988, pp.695-700.
- 191) F. Calogero and S. De Lillo, "Cauchy problems on the semiline and on a finite interval for the Eckhaus equation", *Inverse Problems* **4**, L33-L37 (1988).
- 192) F. Calogero and S. De Lillo, "Initial value problems. for the Eckhaus equation", in: *Some Topics on Inverse Problems* (edited by P. C. Sabatier), Proceedings of the Meeting on Inverse Problems, Montpellier, November 1987; World Scientific, Singapore, 1988, pp.167-174.
- 193) F. Calogero, "Why are certain nonlinear PDEs both widely applicable and integrable?" in: *What is integrability?* (V.E.Zakharov, editor), Springer, 1990, pp.1-62.
- 194) F. Calogero and S. De Lillo, "The Burgers equation on the semi-infinite and finite intervals", *Nonlinearity* **2**, 37-43 (1989).
- 195) F. Calogero, "Universality and integrability of the nonlinear PDEs describing N-wave interactions", *J.Math.Phys.* **30**, 28-40 (1989).
- 196) F. Calogero, "Solutions of certain integrable nonlinear PDEs describing nonresonant N-wave interactions", *J.Math.Phys.* **30**, 639-654 (1989).
- 197) F. Calogero, "A remarkable matrix", in: M. Hazewinkel and M. Gerstenhaber (editors), *Deformation Theory of Algebras and Structure and Applications*, Kluwer Academic Publishers, 1988, pp.975-980.
- 198) F. Calogero and S. De Lillo, "Burgers equation on the semiline", *Inverse Problems* **5**, L37-L40 (1989).
- 198bis) F. Calogero, "Solitoni". In: *Enciclopedia del Novecento*, vol. VIII (Istituto della Enciclopedia Italiana, 1989), pp. 978-991.
- 199) F. Calogero, "Some ideas on nonlinear evolution equations", in: *Inverse Methods in Action* (edited by P. C. Sabatier), Springer, 1990, pp.492-496, and also in: *Nonlinear Physics* (edited by Gu Chaohao, Li Yishen and Tu Guizhang editors), Springer, 1990, pp.232-235.
- 200) F. Calogero, "C-integrable generalization of a system of nonlinear PDEs describing nonresonant N-wave interactions", in: *Nonlinear Evolution Equations and Dynamical Systems* (edited by S. Carrillo and O. Ragnisco), Proceedings of the Fifth Workshop on

Nonlinear Evolution Equations and Dynamical Systems (NEEDS'89) held in Kolymbari, Crete, July 1989; Springer, 1990, pp.102-104.

201) F. Calogero and S. De Lillo, "The Burgers equation on the semiline with general boundary conditions at the origin", J. Math. Phys. **32**, 99-105 (1991).

202) F. Calogero and M. C. Nucci, "Lax Pairs Galore", J. Math. Phys. **32**, 72-74 (1991).

203) F. Calogero and J.-P. Francoise, "Integrable dynamical systems obtained by duplications", Ann. Ins. H. Poincaré **57**, 167-181 (1992).

204) F. Calogero and Ji Xiaoda, "C-integrable nonlinear PDEs. I", J. Math. Phys. **32**, 875-887 (1991).

205) F. Calogero, "Integrable systems of coupled nonlinear ODEs and PDEs, and solvable nonlinear integrodifferential equations of Boltzmann type", in: *Field Theory and Collective Phenomena (In Memory of Professor Hiroomi Umezawa)*, Proceedings of a Meeting in honor of Professor Hiroomi Umezawa held in Perugia, Italy, 28-31 May 1992 (edited by S. De Lillo, P. Sodano, F. C. Khanna and G. W. Semenov). World Scientific, Singapore, 1996, pp. 323-350.

206) F. Calogero and Ji Xiaoda, "C-integrable nonlinear PDEs. II", J. Math. Phys. **32**, 2703-2717 (1991).

207) F. Calogero, "Some ideas and results on integrable nonlinear evolution systems", in: *Differential Geometric Methods in Theoretical Physics* (edited by C. Bartocci, V. Bruzzo and R. Cianci) Proceedings of the 19th International Conference on Group Theoretical Methods in Physics, Rapallo, June 1990; Lecture Notes in Physics **375**, Springer, 1991, pp.91-95.

208) F. Calogero, "Solvable nonlinear integrodifferential equations of Boltzmann type..I", J. Math. Phys. **33**, 528-536 (1992).

209) F. Calogero, "Universal nonlinear evolution equations, and their integrability". In: *Proceedings of the First Workshop on Selected Topics of Theoretical and Modern Mathematical Physics*, held in Borjomi, Georgia, 22-27 April 1991. World Scientific, Singapore, 1991.

210) F. Calogero, "Some recent findings on nonlinear evolution equations and dynamical systems". In: *Nonlinear Evolution Equations and Dynamical Systems* (Proceedings NEEDS '91) (edited by M.Boiti, L.Martina and F.Pempinelli). World Scientific, 1992, pp. 253-259.

211) F. Calogero, "C-integrable nonlinear partial differential equations in $N+1$ dimensions", J. Math. Phys. **33**, 1257-1271 (1992).

212) F. Calogero and S. De Lillo, "The Eckhaus equation in an external potential", J. Phys. **A25**, L287-L290 (1992).

213) F. Calogero and S. De Lillo, "The nonlinear diffusion-convection equation on the semiline with time-dependent flux at the origin", Teor. Mat. Fiz. **99**, 211-219 (1994).

214) F. Calogero, "C-integrable nonlinear partial differential equations". In: *Important Developments in Soliton Theory: 1980-1990*, edited by A. S. Fokas and V. E. Zakharov, Springer, 1992, pp. 33-37.

215) F. Calogero, "Universal C-Integrable Nonlinear Partial Differential Equation in $N+1$ Dimensions", J. Math. Phys. **34**, 3197-3209 (1993).

216) F. Calogero, "Universal Integrable Nonlinear PDEs". In : *Applications of Analytical and Geometrical Methods to Nonlinear Differential Equations*,(ed. by P. A. Clarkson), NATO ASI Series C: Mathematical and Physical Sciences, Vol. 413. Kluwer, 1993, pp. 109-114.

217) F. Calogero, "Interpolation in multidimensions, a convenient finite-dimensional matrix representation of the (partial) differential operators, and some applications", J. Math. Phys. **34**, 4704-4724 (1993).

218) F. Calogero, "Remarks on certain integrable one-dimensional many-body problems", Phys. Letters A **183**, 85-88 (1993).

219) F. Calogero and Ji Xiaoda, "C-integrable nonlinear partial differential equations. III", J. Math. Phys. **34**, 5810-5831 (1993).

- 220) F. Calogero and Ji Xiaoda, "Solvable (nonrelativistic, classical) n -body problems in multidimensions. I", J. Math. Phys. **35**, 710-733 (1994).
- 221) F. Calogero and Ji Xiaoda, "Solvable (nonrelativistic, classical) n -body problems on the line. I", J. Math. Phys. **34**, 5659-5670 (1993).
- 222) F. Calogero and M.D. Kruskal, "An elementary theorem in plane geometry and its multidimensional extension", in: *Partial Differential Equations and Applications (Collected papers in honor of Carlo Pucci)*, edited by P. Marcellini, G. T. Talenti and E. Vesentini, Marcel Dekker, New York, 1996, pp. 37-41.
- 223) F. Calogero and M. D. Kruskal, "Determinants and geometry. I", (unpublished).
- 224) F. Calogero, "A class of C-integrable PDEs in multidimensions", Inverse Problems **10**, 1231-1234 (1994).
- 225) F. Calogero, "Remarkable matrices and trigonometric identities", J. Comput. Appl. Math. **83**, 127-130 (1997).
- 226) F. Calogero, "Remarkable matrices and trigonometric identities. II", Commun. Appl. Anal. **3**, 267-270 (1999).
- 228) F. Calogero and Ji Xiaoda, "Solvable (nonrelativistic, classical) n -body problems in multidimensions. II", in: *National Workshop on Nonlinear Dynamics*, edited by M. Costato, A. Degasperis and M. Milani, Conference Proceedings vol. **48**, Pavullo nel Frignano (Modena), Italy, 19-22 May 1994; Società Italiana di Fisica, Bologna, 1995, pp. 21-32 .
- 229) F. Calogero, "Integrable nonlinear evolution equations and dynamical systems in multidimensions". In: *KdV '95*, Proceedings of the International Symposium held in Amsterdam, The Netherlands, April 23-26, 1995 (edited by M. Hazewinkel, H.W. Capel and E.M. de Jager; reprinted from Acta Applicandae Mathematicae, vol. **39**, 1995), pp. 229-244.
- 230) F. Calogero, "An integrable hamiltonian system", Physics Letters A **201**, 306-310 (1995).
- 231) F. Calogero, "A solvable hamiltonian system", J. Math. Phys. **36**, 4832-4840 (1995).
- 232) F. Calogero and J. F. van Diejen, "An exactly solvable Hamiltonian system: quantum version", Physics Letters A **205**, 143-148 (1995).
- 233) F. Calogero, "Remarkable matrices and trigonometric identities. III" (unpublished).
- 234) F. Calogero, "Integrable nonlinear evolution equations in multidimensions". In: *Nonlinear Waves*, Proceedings of the Fourth MSJ International Research Institute, Sapporo, July 10-21, 1995 (edited by R. Agemi, Y. Giga and T. Ozawa), vol. I, pp. 7-17. Hokkaido University Technical Report Series in Mathematics, Series # 43, March, 1996.
- 235) F. Calogero and J.-P. Francoise, "A completely integrable hamiltonian system", J. Math. Phys. **37**, 2863-2871 (1996).
- 236) F. Calogero, "Solvable (nonrelativistic, classical) n -body problems on the line. II", J. Math. Phys. **37**, 1253-1258 (1996).
- 237) F. Calogero, "A solvable n -body problem in the plane. I", J. Math. Phys. **37**, 1735-1759 (1996).
- 238) G. Biondini, S. De Lillo and F. Calogero, "The (2+1)-dimensional Eckhaus equation: display of some solutions". In: *Nonlinear Evolution Equations and Dynamical Systems (NEEDS '94)*, edited by V. G. Makhankov, A. R. Bishop and D. D. Holm, World Scientific, Singapore, 1995, pp. 16-23.
- 239) F. Calogero and J. F. van Diejen, "Solvable quantum version of an integrable hamiltonian system", J. Math. Phys. **37**, 4243-4251 (1996).
- 240) F. Calogero and J.-P. Francoise, "Hamiltonian character of the motion of the zeros of a polynomial whose coefficients oscillate over time", J. Phys. A: Math. Gen. **30**, 211-218 (1997).
- 241) F. Calogero and Ji Xiaoda, "C-integrable nonlinear PDEs. IV", J. Phys. A: Math. Gen. **29**, 6781-6794 (1996).

- 242) F. Calogero and Ji Xiaoda, "A solvable n -body problem in the plane. II", (in preparation).
- 243) F. Calogero, "Three solvable many-body problems in the plane", *Acta Applicandae Mathematicae* **51**, 93-111 (1998).
- 244) F. Calogero, "Generalized Lagrangean interpolation, finite-dimensional representations of shift operators, remarkable matrices, trigonometric and elliptic identities". In: *Special Functions and Differential Equations*, Proceedings of a Workshop held at The Institute of Mathematical Sciences, Madras, India, January 13-24, 1997, edited by K. Srinivasa Rao, R. Jagannathan, G. Van den Berghe and J. Van der Jeugt. Institute of Mathematical Sciences, Madras, 1998, pp. 50-59.
- 245) F. Calogero, "C-integrable nonlinear partial differential equations". In: *Important Developments in Soliton Theory: 1980-1990*, edited by A. S. Fokas and V. E. Zakharov, Springer, 1996, pp. (updated version of 214 - publication indefinitely delayed).
- 246) F. Calogero, "Exact solution of an N -body problem in one dimension: two comments", *J. Phys. A: Math. Gen.* **29**, 6455-6457 (1996).
- 247) F. Calogero, "Motion of strings in the plane: a solvable model", *J. Math. Phys.* **38**, 821-829 (1997).
- 248) F. Calogero, A Degasperis and S. De Lillo, "The multicomponent Eckhaus equation", *J. Phys. A: Math. Gen.* **30**, 5805-5814 (1997).
- 249) F. Calogero, "Cosmic origin of quantization", *Phys. Lett. A* **228**, 335-346 (1997).
- 250) F. Calogero, "Cosmic origin of quantization", *Int. J. Modern Phys.* **18**, 519-525 (2004).
- 251) F. Calogero, "A class of integrable hamiltonian systems whose solutions are (perhaps) all completely periodic", *J. Math. Phys.* **38**, 5711-5719 (1997).
- 252) F. Calogero, "Tricks of the trade: relating and deriving solvable and integrable dynamical systems", in: J. F. van Diejen and L. Vinet (editors), *Calogero-Moser-Sutherland Models, Proceedings of the Workshop on Calogero-Moser-Sutherland Models held in Montreal, 10-15 March 1997*, CRM Series in Mathematical Physics, Springer, 2000, pp. 93-116.
- 253) F. Calogero and J.-P. Francoise, "Solution of certain integrable dynamical systems of Ruijsenaars-Schneider type with completely periodic trajectories", *Ann. Henri Poincaré* **1**, 173-191 (2000).
- 254) F. Calogero, "Integrable and solvable many-body problems in the plane via complexification", *J. Math. Phys.* **39**, 5268-5291 (1998).
- 255) F. Calogero, "An inverse problem in analytical mechanics", (unpublished).
- 256) F. Calogero, "A solvable many-body problem in the plane", *J. Nonlinear Math. Phys.* **5**, 289-293 (1998).
- 257) F. Calogero, "Massive neutrinos, the "missing mass" of the Universe, and the conjecture of a cosmic origin of quantization", (unpublished).
- 258) M. Bruschi and F. Calogero, "Solvable and/or integrable and/or linearizable N -body problems in ordinary (three-dimensional) space. I", *J. Nonlinear Math. Phys.* **7**, 303-386 (2000).
- 259) F. Calogero, A. Degasperis and Ji Xiaoda, "Nonlinear Schroedinger-type equations from multiscale reduction of PDEs. I. Systematic derivation", *J. Math. Phys.* **41**, 6399-6443 (2000).
- 260) F. Calogero, "Partially solvable quantum many-body problems in D -dimensional space ($D=1,2,3,\dots$)", *J. Math. Phys.* **40**, 4208-4226 (1999).
- 261) F. Calogero and J.-P. Francoise, "A novel solvable many-body problem with elliptic interactions", *Int. Math. Res. Notices* **15**, 775-786 (2000).
- 262) F. Calogero and F. Leyvraz, "A new solvable model of aggregation kinetics", *J. Phys. A: Math. Gen.* **32**, 7697-7718 (1999).

- 263) F. Calogero, "The "neatest" many-body problem amenable to exact treatments (a "goldfish"?)", *Physica D* **152-153**, 78-84 (2001).
- 264) F. Calogero, *Classical many-body problems amenable to exact treatments*, Lecture Notes in Physics Monograph **m 66**, Springer, 2001.
- 265) M. Bruschi and F. Calogero, "On the integrability of certain matrix evolution equations", *Physics Lett. A* **273**, 167-172 (2000).
- 266) M. Bruschi and F. Calogero, "Integrable systems of quartic oscillators", *Physics Lett. A* **273**, 173-182 (2000).
- 267) F. Calogero and F. Leyvraz, "New results on a parity-dependent model of aggregation kinetics", *J. Phys. A: Math. Gen.* **33**, 5619-5629 (2000).
- 268) F. Calogero, A. Degasperis and Ji Xiaoda, "Nonlinear Schroedinger-type equations from multiscale reduction of PDEs. II. Necessary conditions of integrability for real PDEs", *J. Math. Phys.* **42**, 2635-2652 (2001).
- 269) F. Calogero and J.-P. Francoise, "Periodic solutions of a many-rotator problem in the plane", *Inverse Problems* **17**, 1-8 (2001).
- 270) F. Calogero, "Differential equations featuring many periodic solutions", in: *Geometry and integrability* (edited by L. Mason and Y. Nutku), London Mathematical Society Lecture Notes, vol. **295**, Cambridge University Press, 2003, pp. 9-21.
- 271) F. Calogero and J.-P. Francoise, "Periodic motions galore: how to modify nonlinear evolution equations so that they feature a lot of periodic solutions", *J. Nonlinear Math. Phys.* **9**, 99-125 (2002).
- 272) E. Abadoglu, M. Bruschi and F. Calogero, "ABC of magnetic monopole dynamics", *Theor. Math. Phys.* **128**, 835-844 (2001).
- 273) F. Calogero, "Periodic solutions of a system of complex ODEs", *Phys. Lett. A* **293**, 146-150 (2002).
- 274) F. Calogero, "On a modified version of a solvable ODE due to Painlevé", *J. Phys. A: Math. Gen.* **35**, 985-992 (2002).
- 275) F. Calogero, "On modified versions of some solvable ODEs due to Chazy", *J. Phys. A: Math. Gen.* **35**, 4249-4256 (2002).
- 276) F. Calogero, "Solvable three-body problem and Painlevé conjectures", *Theor. Math. Phys.* **133**, 1443-1452 (2002); Erratum **134**, 139 (2003).
- 277) F. Calogero and M. Sommacal, "Periodic solutions of a system of complex ODEs. II. Higher periods", *J. Nonlinear Math. Phys.* **9**, 483-516 (2002).
- 278) F. Calogero, J.-P. Francoise and M. Sommacal, "Periodic solutions of a many-rotator problem in the plane. II. Analysis of various motions", *J. Nonlinear Math. Phys.* **10**, 157-214 (2003).
- 279) S. Iona and F. Calogero, "Integrable systems of quartic oscillators in ordinary (three-dimensional) space", *J. Phys. A: Math. Gen.* **35**, 3091-3098 (2002).
- 280) F. Calogero, "Cool irrational numbers and their rather cool rational approximations", *Math. Intelligencer*, Fall 2003, pp. 72-76.
- 281) F. Calogero, "A complex deformation of the classical gravitational many-body problem that features a lot of completely periodic motions", *J. Phys. A: Math. Gen.* **35**, 3619-3627 (2002).
- 282) F. Calogero, "A super-Painlevé third-order ODE", (unpublished).
- 283) F. Calogero and J.-P. Francoise, "Nonlinear evolution ODEs featuring many periodic solutions", *Theor. Mat. Fis.* **137**, 1663-1675 (2003).
- 284) F. Calogero and V. I. Inozemtsev, "Nonlinear harmonic oscillators", *J. Phys. A: Math. Gen.* **35**, 10365-10375 (2002).
- 285) F. Calogero, "General solution of a three-body problem in the plane", *J. Phys. A: Math. Gen.* **36**, 7291-7299 (2003).

- 286) F. Brau and F. Calogero, "Upper and lower limits for the number of S-wave bound states in an attractive potential", *J. Math. Phys.* **44**, 1554-1575 (2003).
- 287) F. Calogero and J.-P. Francoise, "Isochronous motions galore: nonlinearly coupled oscillators with lots of isochronous solutions", in: *Superintegrability in Classical and Quantum Systems*, Proceedings of the Workshop on Superintegrability in Classical and Quantum Systems, Centre de Recherches Mathématiques (CRM), Université de Montréal, September 16-21 (2003), CRM Proceedings & Lecture Notes, vol. **37**, American Mathematical Society, 2004, pp. 15-27.
- 288) F. Calogero, "Partially superintegrable (indeed isochronous) systems are not rare", in: *New Trends in Integrability and Partial Solvability*, edited by A. B. Shabat, A. Gonzalez-Lopez, M. Manas, L. Martinez Alonso and M. A. Rodriguez, NATO Science Series, II. Mathematics, Physics and Chemistry, vol. **132**, Proceedings of the NATO Advanced Research Workshop held in Cadiz, Spain, 2-16 June 2002, Kluwer, 2004, pp. 49-77.
- 289) F. Brau and F. Calogero, "Upper and lower limits for the number of bound states in a central potential", *J. Phys. A: Math. Gen.* **36**, 12021-12063 (2003).
- 290) F. Calogero and A. Degasperis, "New integrable equations of nonlinear Schroedinger type", *Studies Appl. Math.* **113**, 91-137 (2004).
- 291) F. Brau and F. Calogero, "A class of (ℓ -dependent) potentials with the same number of (ℓ -wave) bound states", *Phys. Lett. A* **312**, 16-20 (2003).
- 292) F. Calogero, J.-P. Francoise and A. Guillot, "A further solvable three-body problem in the plane", *J. Math. Phys.* **44**, 5159-5165 (2003).
- 293) F. Calogero, "Solution of the goldfish N-body problem in the plane with (only) nearest-neighbor coupling constants all equal to minus one half", *J. Nonlinear Math. Phys.* **11**, 1-11 (2004).
- 294) F. Calogero and S. Graffi, "On the quantization of a nonlinear Hamiltonian oscillator", *Phys. Lett. A* **313**, 356-362 (2003).
- 295) M. Mariani and F. Calogero, "A modified Schwarzian Korteweg de Vries equation in 2+1 dimensions with lots of periodic solutions", *Yadernaya Fizika* (in press).
- 296) F. Calogero, "On the quantization of two other nonlinear harmonic oscillators", *Phys. Lett. A* **319**, 240-245 (2003).
- 297) F. Calogero, "On the quantization of yet another two nonlinear harmonic oscillators", *J. Nonlinear Math. Phys.* **11**, 1-6 (2004).
- 298) F. Calogero and S. Graffi, "Quantization and canonical transformations", (in preparation).
- 299) F. Calogero, "On the analyticity of the solutions of the 'goldfish' many-body problem", (in preparation).
- 300) F. Calogero, "Isochronous dynamical systems", *Applicable Anal.* (in press).
- 301) F. Calogero, "Two new classes of isochronous Hamiltonian systems", *J. Nonlinear Math. Phys.* **11**, 208-222 (2004).
- 302) F. Calogero and A. Degasperis, "On the quantization of Newton-equivalent Hamiltonians", *Amer. J. Phys.* **72**, 1202-1203 (2004).
- 303) F. Brau and F. Calogero, "Lower limit in semiclassical form for the number of bound states in a central potential", *Phys. Lett. A* **321**, 225-230 (2004).
- 304) F. Calogero and J.-P. Francoise, "New solvable many-body problems in the plane", *Annales Henri Poincaré* (submitted to).
- 305) M. Mariani and F. Calogero, "Isochronous PDEs", *Yadernaya Fizika* (Russian Journal of Nuclear Physics) **68**, 958-968 (2005).
- 306) F. Calogero, "A technique to identify solvable dynamical systems, and a solvable generalization of the goldfish many-body problem", *J. Math. Phys.* **45**, 2266-2279 (2004).
- 307) M. Bruschi and F. Calogero, "Convenient parametrizations of matrices in terms of vectors", *Phys. Lett. A* **327**, 312-319 (2004).

- 308) M. Bruschi and F. Calogero, "Integrable systems of quartic oscillators. II", *Physics Lett.* **A327**, 320-326 (2004).
- 309) F. Calogero, "A technique to identify solvable dynamical systems, and another solvable extension of the goldfish many-body problem", *J. Math. Phys.* **45**, 4661-4678 (2004).
- 310) M. Bruschi and F. Calogero, "Novel solvable matrix evolution equations" (in preparation).
- 311) F. Calogero and A. Degasperis, "Novel solution of the integrable system describing the resonant interaction of three waves", *Physica D* **200**, 242-256 (2005).
- 312) F. Calogero and A. Degasperis, "New integrable PDEs of boomeronic type", (in preparation).
- 313) F. Calogero and S. Iona, "Detailed analysis of the behavior of an extended 'goldfish' model: one, two and three-body cases", (in preparation).
- 314) F. Calogero, "Isochronous systems", *Proceedings of the Conference on Geometry, Integrability and Physics*, Varna, June 2004 (in press).
- 315) F. Calogero, "Integrable systems: overview", to be published in the *Encyclopedia of Mathematical Physics* edited by J.-P. Francoise, G. Naber and Tsou Sheung Tsun.
- 316) F. Calogero, "Isochronous systems", to be published in the *Encyclopedia of Mathematical Physics* edited by J.-P. Francoise, G. Naber and Tsou Sheung Tsun.
- 317) F. Calogero, D. Gomez-Ullate, P. M. Santini and M. Sommacal, "Towards a theory of chaos as travel on a Riemann surface. I", (in preparation).
- 318) F. Calogero, D. Gomez-Ullate, P. M. Santini and M. Sommacal, "Towards a theory of chaos as travel on a Riemann surface. II", (in preparation).
- 319) F. Calogero and E. Induti, "On the classical problem of N particles attracted by linear forces to the origin and interacting pairwise via inverse-odd-power forces. I.", (in preparation).

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