

**LIST OF RESEARCH PUBLICATIONS
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Refereed Articles

1. Boulton L, García del Moral M-P & Restuccia A. “Spectral properties in supersymmetric matrix models”. *Nuclear Physics B* 856, 716-747, 2012.
2. Boulton L & Lord G. “Approximation properties of the q -sine bases”. *Proceedings of the Royal Society A* 467, 2690-2711, 2011.
3. Boulton L & Strauss M. “On the convergence of second order spectra and multiplicity”. *Proceedings of the Royal Society A* 467, 264-284, 2011.
4. Boulton L & Lancaster P. “Schur decompositions of a matrix and the boundary of its pseudospectra”. *SIAM Journal of Matrix Analysis and its Applications* 31, 2921-2923, 2010.
5. Boulton L, Levitin M & Marletta M. “A PT-symmetric periodic problem with boundary and interior singularities”. *Journal of Differential Equations* 249, 3081-3098, 2010.
6. Boulton L, Levitin M & Marletta M. “On the Green function of an indefinite problem with boundary and interior singularities”. *Translations of the American Mathematical Society* 231, 58-66, 2010.
7. Boulton L & Boussaid N. “Non-variational computation of the eigenstates of Dirac operators with radially symmetric potentials”. *LMS Journal of Computation and Mathematics* 13, 10-32, 2010.
8. Boulton L, García del Moral M-P & Restuccia A. “The supermembrane with central charges: (2+1)-D NCSYM, confinement and phase transition”. *Nuclear Physics B* 795, 27-51, 2008.
9. Boulton L, Lancaster P & Psarrakos P. “On pseudospectra of matrix polynomials and their boundaries”. *Mathematics of Computation* 77, 313-334, 2008.
10. Boulton L & Levitin M. “On approximation of the eigenvalues of perturbed periodic Schrödinger operators”. *Journal of Physics A: Mathematics and Theory* 40, 9319-9329, 2007.
11. Boulton L & Strauss M. “Stability of quadratic projection methods”. *Operators and Matrices* 1, 217-233, 2007.
12. Binding P, Boulton L & Browne P. “A Prüfer angle approach to singular Sturm-Liouville problems with Molčanov potentials”.

- Journal of Computational and Applied Mathematics* 208, 226-234, 2007.
13. Boulton L. Non-variational approximation of discrete eigenvalues of self-adjoint operators. *IMA Journal of Numerical Analysis* 27, 102-121, 2007.
 14. Boulton L. “Limiting set of second order spectra”. *Mathematics of Computation* 75, 1367-1382, 2006.
 15. Binding P, Boulton L, Drábek P, Cepicka J & Girg P. “Basis properties of eigenfunctions of the p-Laplacian”. *Proceedings of the American Mathematical Society* 134, 3487-3494, 2006.
 16. Boulton L & Restuccia A. “The heat kernel of the compactified D=11 supermembrane with non-trivial winding”. *Nuclear Physics B*, 724, 380-396, 2005.
 17. Boulton L, Marcantognini S & Morán M. “Finite lifetime eigenfunctions of coupled systems of harmonic oscillators”. *Letters in Mathematical Physics* 70, 121-131, 2004.
 18. Boulton L. “Projection methods for discrete Schrödinger operators”. *Proceedings of the London Mathematical Society* 88, 526-544, 2004.
 19. Boulton L, García del Moral M & Restuccia A. Discreteness of the spectrum of the compactified D=11 supermembrane with non-trivial winding. *Nuclear Physics B* 671, 343-358, 2003.
 20. Boulton L & Rosas M. “Sumando la derivada de la serie geométrica”. (in Spanish). *Boletín de la Asociación Matemática Venezolana* 10, 89-98, 2003.
 21. Boulton L. “Spectral behaviour of a simple non-self-adjoint operator”. *Journal of Differential Equations* 186, 186-229, 2002.
 22. Boulton L, García del Moral M, Martín I & Restuccia A. “On the spectrum of a matrix model for the D=11 supermembrane compactified on a torus with non-trivial winding”. *Classical and Quantum Gravity* 19, 2951-2959, 2002.
 23. Boulton L. “The non-self-adjoint harmonic oscillator, compact semigroups and pseudospectra”. *Journal of Operator Theory* 47, 413-429, 2002.

Monographs

1. Boulton L & Levitin M. *Trends and Tricks in Spectral Theory*. Ediciones IVIC, Caracas, 2007. ISBN 978-980-261-086-0.

Conference papers published as proceedings

1. Boulton L, García del Moral M, Martín I & Restuccia A. “Exact discreteness and mass gap of N=1 symplectic Yang-Mills from M-theory”. Contribution to the proceedings of the RTN project

- “Constituents, Fundamental Forces and Symmetries of the Universe” conference, Naples 2006. *Fortschritte der Physik* 55, 672-677, 2007.
2. Boulton L. “A spectral projection method for Jacobi operators”. Memoirs of the III Congress of the Sociedad Venezolana de Física 2001. *Revista Mexicana de Física* 49, suppl. 3, 111–113, 2003.
 3. Boulton L, García del Moral M, Martín I & Restuccia A. “A matrix model for a noncommutative formulation of the D=11 supermembrane compactified torus”. Memoirs of the III Congress of the Sociedad Venezolana de Física. *Revista Mexicana de Física* 49, suppl. 3, 108-110, 2003.