

## Publications Quitemad 2015

- A. Ciurana, V. Martin, J. Martinez-Mateo, B. Schrenk, M. Peev, A. Poppe, "Entanglement Distribution in Optical Networks," IEEE Journal of Selected Topics in Quantum Electronics, vol. 21, no. 3, May-June 2015
- J. Martinez-Mateo, C. Pacher, M. Peev, A. Ciurana, and V. Martin, "Demystifying the Information Reconciliation Protocol Cascade," Quantum Information & Computation, vol. 15, no. 5&6, pp. 453-477, Apr. 2015
- Martinez-Mateo J., Rosales J.L., Martin V. Rate-Adaptive LDPC-based Key Reconciliation for High Performance Quantum Key Distribution. Updating Quantum Cryptography and Communications Conference (UQCC2015) and 5th International Conference on Quantum Cryptography (QCrypt2015). 28/09/2015-02/10/2015, Conferencia. Poster. Tokyo-Japon.
- Christoph P., Grabenweger P., Martinez-Mateo J., Martin V. Rate-Adaptive An Information Reconciliation Protocol for Secret-Key Agreement with Small Leakage. Updating Quantum Cryptography and Communications Conference (UQCC2015) and 5th International Conference on Quantum Cryptography (QCrypt2015). 28/09/2015-02/10/2015, Conferencia. Poster. Tokyo-Japon.
- C. Pacher, J. Martinez-Mateo, J. Duhme, F. Furrer, V. Händchen, T. Gehring, R. F. Werner, and R. Schnabel, "Efficient Information Reconciliation for Continuous-Variable QKD using Non-Binary Low-Density Parity-Check Codes,. Updating Quantum Cryptography and Communications Conference (UQCC2015) and 5th International Conference on Quantum Cryptography (QCrypt2015). 28/09/2015-02/10/2015, Conferencia. Poster. Tokyo-Japon. Comentario: (aplicable a las tres contribuciones anteriores) QCRYPT es la conferencia referente mundial para criptografia cuantica.
- Martin V., Martinez-Mateo J.L., Peev M. "An Introduction to Quantum Key Distribution". To be published in "Wiley Encyclopedia of Engineering" 25 pags. Comentario: esta es una contribución invitada a la enciclopedia más importante en ingeniería.
- A. Poppe, A. Ciurana, J. Martinez-Mateo, J.L. Rosales, B. Schrenk, M. Peev and V. Martin. "A Novel Concept of Entanglement Distribution in Optical Networks" CLEO/Europe-EQEC 2015, Conference on Lasers and Electro-Optics/Europe and the European Quantum Electronics Conference (CLEO es una de las principales conferencias en óptica para comunicaciones)
- C. Pacher, P. Grabenweger J. Martinez-Mateo, and V. Martin, "An Information Reconciliation Protocol for Secret-Key Agreement with Small Leakage," in 2015 IEEE International Symposium on Information

Theory (ISIT), June 14-19, Hong Kong, pp. 730-734, 2015 (Nota: ISIT es una de las tres principales conferencias en teoría de la información)

- Jose Ignacio Latorre, German Sierra  
**There is entanglement in the primes**  
2015 Article Quantum Information and Computation 15 0622(2015)
- Benedikt Herwerth, German Sierra, Hong-Hao Tu, Anne E. B. Nielsen  
**Excited States in Spin Chains from Conformal Blocks**  
2015 Article Phys. Rev. B 91 235121 (2015)
- Giovanni Ramirez, Javier Rodriguez-Laguna, German Sierra  
**Entanglement over the rainbow**  
2015 Article J. Stat. Mech. P06002 (2015)
- Hong-Hao Tu, German Sierra  
**Infinite matrix product states boundary conformal field theory and the open Haldane-Shastry model**  
2015 Article Phys. Rev. B 92 041119
- Ivan Glasser, J Ignacio Cirac, German Sierra, Anne E.B. Nielsen  
**Exact parent Hamiltonians of bosonic and fermionic Moore-Read states on lattices and local models**  
2015 Article New J. Phys. 17 082001 (2015)
- Benedikt Herwerth, German Sierra, Hong-Hao Tu, Anne E. B. Nielsen, J. Ignacio Cirac  
**Edge states for the Kalmeyer-Laughlin wave function**  
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- R.A. Molina, E. Benito-Matías, A.D. Somoza, L. Chen, Y. Zhao  
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- J. Mur-Petit, R.A.Molina  
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- J.M.G. Gómez, E. Faleiro, L. Muñoz, R.A. Molina, A. Relaño  
**Shell-Model studies of chaos and statistical properties in nuclei**  
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- V. Fernández-Hurtado, J. Mur-Petit, J.J. García-Ripoll, R.A. Molina  
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- O. Legeza, L. Veis, A. Poves y J. Dukelsky  
**Advanced density matrix renormalization group method for nuclear structure calculations**  
 2015 Phys. Rev. C 92, 051303 (2015)
- Esebbag y J. Dukelsky  
**The Elliptic Gaudin Model: a Numerical Study**  
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- S. Pittel, J. Dukelsky y C.  
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 2015 J. Phys.: Conf. Ser. 639, 012009 (2015)
- Tobias Grass, Maciej Lewenstein, Alejandro Bermudez  
**Dual trapped-ion quantum simulators: an alternative route towards exotic quantum magnets**  
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- Bermudez, D. Porras  
**Interaction-Dependent Photon-Assisted Tunneling in Optical Lattices: A Quantum Simulator of Strongly-Correlated Electrons and Dynamical Gauge Fields**  
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- Guillermo Diaz-Camacho, Diego Porras, Juan Jose Garcia-Ripoll  
**Photon-mediated qubit interactions in 1D discrete and continuous models**  
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- David Edward Bruschi, Carlos Sabín, Pieter Kok, Göran Johansson, Per Delsing, Ivette Fuentes  
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- Kurcz, J. J. García-Ripoll, A. Bermudez.  
**Driven Spin-Boson Luttinger Liquids.**  
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**Large bipartite Bell violations with dichotomic measurements**  
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**Rapid mixing and stability of quantum dissipative systems**  
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- Jorge G. Russo, Guillermo A. Silva, Miguel Tierz.  
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