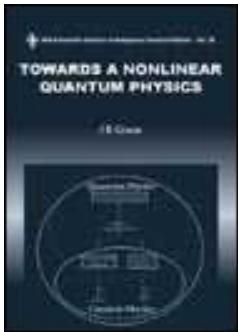


Publications

Books

Livros Publicados



JR Croca,
Towards a Nonlinear Quantum Physics,
World Scientific, London (2003).



JR Croca e RN Moreira
Diálogos sobre Física Quântica
Esfera do Caos, Lisboa (2007).

JR Croca, Beyond non-Causal Quantum Physics, Chapter of the Book *Modern Nonlinear Optics*, Part 2, Second Edition, Edited by Myron Evans. Series Editors I. Prigogine and Stuart Rice. Evans, (John Wiley & Sons, New York 2002)

JR Croca, *Can the existence of de Broglie's empty wave be proven experimentally?* in Microphysical Reality and Quantum Formalism, eds. A van der Merwe et al. (Kluwer Academic Publishers, 1988).

JR Croca, *Some experiments to prove or disprove the existence of the matter waves of de Broglie*, in Problems in Quantum Physics, eds. L. Kostro et al. (World Scientific, 1988).

JR Croca, *Some basic differences between the Copenhagen and de Broglie interpretation of quantum mechanics leading to practical experiments*, in The Concept of Probability, eds. E. Bitsakis and C. Nicolaides (Kluwer Academic Publishing, 1989).

JR Croca, *Test on the Reality of de Broglie Waves with two Coherent Photons*, in Quantum Measurements in Optics, Ed. P. Tombesi, Plenum, (1991)

JR Croca, *In Quest of the Broglie Waves*, in *Waves and Particles in Light and Matter*, Ed. Alwyn van der Merwe and A. Garuccio, Plenum, 1994.

JR Croca, *On the Uncertainty Relations*, in Problems in Quantum Physics, Ed. Alwyn van der Merwe and M. Ferrero, Plenum, 1995.

JR Croca, *Experiments to Teste the Reality of de Broglie Waves*, in The Present Status of the Quantum Theory of Light, eds. S. Jeffers et al. (Kluwer Academic Publishers, 1997).

JR Croca, *Experiment on the Independence of C*, in *Open Questions in Relativistic Physics*, Ed. F. Selleri, Apeiron, 1997).

J.R. Croca, R.N. Moreira and A.R. Silva, *Recovery of an Interference Pattern Hidden by Noise*, in, *Causality and Locality in Modern Physics and Astronomy*, Eds. S. Jeffers et al. (Kluwer Academic Publishers, 1998).

A.R. Silva, J.S. Ramos, J.R. Croca and R.N. Moreira *Non-Linear Schrödinger Equation, Burger's Equation and Superposition of Solutions*, in *Causality and Locality in Modern Physics and Astronomy*, eds. S. Jeffers et al. (Kluwer Academic Publishers, 1998)

JR Croca, *Beyond Heisenberg's Uncertainty Limits*, in *Gravitation and Cosmology; From Hubble Radius to Planck Scale*, eds. R.L. Amoroso, G. Hunter, M. Kafatos, J-P. Vigier , (Kluwer Academic Publishers, Dordrecht, 2002).

J. Marto and JR Croca, *Can Non-Local Interferometry Experiments Reveal a Local Model of Matter*, in *Gravitation and Cosmology; From Hubble Radius to Planck Scale*, eds. R.L. Amoroso, G. Hunter, M. Kafatos, J-P. Vigier, (Kluwer Academic Publishers, Dordrecht, 2002)

JR Croca, *A Realidade na Física Quântica*, proceedings of Colóquio A Mente a Religião e a Ciência, 2003.

JR Croca, O Espaço e o Tempo na Física Quântica, Diálogos Disciplinares in As Ciências e as Artes na Viragem do Milénio, Eds. A. P. de Sousa and T. Malafaia, IST Press 2003.

JR Croca, A Razão na Física Quântica, in A Razão e o Espírito Científico, Edições Duarte Reis, Lisboa 2004.

Papers

JR Croca, *Neutron interferometry can prove (or refute) the existence of the Broglie's waves*, Found. Phys. 17(1987)971.

JR Croca, *An experiment for detection of empty waves*, Phys. Lett. A 124(1987)22.

JR Croca, A. Garuccio and F. Selleri, *On a possible way to detect de Broglie's waves*, Found. Phys. Lett. 1(1988)101.

JR Croca, *On the nature of the waves of Einstein de Broglie*, Ann. Found. L. de Broglie, 14(1989)323.

JR Croca, *A possible experiment to test the nature of the spreading of the matter wave packets*, Physics Essays, 3(1990)71.

J.R. Croca, A. Garuccio, V. Lepori e R.N. Moreira, *Quantum-optical predictions for an experiment on de Broglie waves detection*, em colaboração, Found. Phys. Lett. 3(1990)557

J.R. Croca, A. Garuccio, V. Lepori e R.N. Moreira *Comment on Experimental Test of de Broglie Guided-Wave Theory for Photons*, em colaboração, Phys. Rev. Lett. 25(1992)3813

JR Croca, *Laboratory-Scale Test of de Broglie's Tired-Photon Model*, Apeiron, 4(1997)41

J.R. Croca, M. Ferrero, A. Garuccio, V.L. Lepore, *An Experiment to Teste the Reality of de Broglie Waves*, em colaboração, Found. Phys. Letters, 10/1997)441.

JR Croca, *Counter Examples to the General Validity of Heisenberg Uncertainty Relations*, Hacronic Journal **22**, 29-39 (1999).

JR Croca, *The Uncertainty Relations*, Apeiron, 6, Nr.3-4, 151-165 (1999).

J.R. Croca and F. Selleri, *Is the One-way Velocity of Light Measurable?* Nuovo Cimento, 114 B, 447-457 (1999).

J.R. Croca and F. Selleri, *Some Remarks Concerning Heisenberg's Indeterminacy Relations*, Comm. Math. Theor. Physics, vol. 2, pp.61-69(1999).

J.R. Croca and R.N. Moreira, *Indeterminism Versus Causalism*, Grazer Philosophische Studien, 56(1999)151.

J. Marto and JR Croca, *Non-local interferometry: a causal explanation by means of local wavelet analysis*", Foundations of Physics Letters, vol. 15, 2002

JR Croca, *Causalismo Versus Determinismo na Física Contemporânea*, Vértice, Setembro (1990).

JR Croca and R.N. Moreira, O que é um Facto em Ciência, A Razão, 2002.

JR Croca, *De Broglie Tired Light Model and the Reality of the Quantum Waves*, Foundations of Physics, Vol 34, nº 12, pags.1929-1954, 2004.

JR Croca, *Local Analysis By Wavelets Versus Nonlocal Fourier Analysis*, International Jornal of Quantum Information, Vol.5, Nos 1&2 (2007) 1-7