CURRICULUM VITAE

Dr. Kamal BERRADA	
Address: Al Imam Mohammad Ibn Saud Islamic University, Department of Physics-Riyadh, Saudi Arabia. *E-mail1: berradakamal2006@gmail.com* *E-mail3: kberrada@ictp.it*	*Nationality: Moroccan.* *Date of birth: 18 May 1981.* *Status: Married*

Ph.D in Physics

Stage and Work Experience

2013-2014	***Assistant Professor: Al Imam Mohammad Ibn Saud Islamic University, Department of Physics-Riyadh, College of Science, Saudi Arabia***
2012-2013	***Assistant Professor: Al Imam Mohammad Ibn Saud Islamic University, Department of Physics-Riyadh, College of Science, Saudi Arabia.***
Since March 2009	***Part-time Professor: Lectures on Computational Science*** ***University Mohamed V-Agdal, Rabat, Morocco.***
June 2012 – August 2012	***Invitation for two months: Collaboration*** *Quantum Optics: Quantum and Laser Science.* ***Department of Physics, University of Malaya, Kuala Lumpur, Malaysia.***
July 2012 – August 2012	***Invitation for two months: Collaboration*** *Quantum Information Theory: Scale free and Random Quantum networks.* ***Department of Computer Science, International Islamic University, Kuala Lumpur, Malaysia.***
June 2012 – July 2012	***Visit for one month*** *Quantum Information Theory: Nonclassical phenomena , geometric Phase, Coherent states Theory, Classical and quantum correlations, Cavities* ***International Centre for Theoretical Physics-Trieste, Italy.***
November 2011 – December 2011	***Stage for two months*** *Quantum Information Theory: Study of different kinds of correlations in quantum dot systems.* ***Departement de Fisica, Universitat de les IIIes Balears, Mallorca, Spain***.
June 2011 – August 2011	***Stage for two months*** *Quantum Information Theory: Quantification and Generation of Entanglement, Coherent states Theory, Classical and quantum correlations* ***International Centre for Theoretical Physics-Trieste, Italy.***
July 2010 – January 2011	***Stage for six months*** *Quantum Information Theory: Classical and Quantum Correlations, Entanglement, Quantum Discord, and Quantum Dissonance.* ***Institut für Angewandte Physik, Technische Universität Darmstadt, Germany.***
June 2010 –	***Stage for one month*** *Quantum Information Theory: Entanglement phenomenon.*

July 2010	***International Centre for Theoretical Physics-Trieste, Italy.***
July 2009 – September 2009	***Stage for two months*** *Quantum Information Theory: Quantification and Generation of Entanglement, Coherent states Theory.* ***International Centre for Theoretical Physics-Trieste, Italy.***
June 2008 – July 2008	***Stage for one month*** *Quantum Information Theory: General Study.* ***International Centre for Theoretical Physics-Trieste, Italy.***

Education

20 June – 2011	***P.hD*** ***Thesis title:*** *Quantum information theory: Quantification and Characterization of Quantum Entanglement.* *University Mohamed V-Agdal, Rabat, Morocco.*
2005–2007	***Master in Physics of Condensed Matter*** *University Chouaib Doukkali, El Jadida, Morocco.*
2005	***Bachelor honors in Physics*** *University Chouaib Doukkali, El Jadida, Morocco.*

Prizes

27 June – 2012	*Prize for The Best Thesis in Physics and Chemistry,* ***2009–2011***
03 February 2013	*Prize in Scientific Research,* ***2012-2013***

More than 30 Publications

	-*A. S. F. Obada, A. Abdel-Khalek,* ***K. Berrada****, and M. E. Shaheen****, Investigations of information quantifiers for the Tavis–Cummings model, Physica A.* ***392****, 6624 (2013)* - ***K. Berrada****, S. Abdel-Khalek, and C. H. Raymond Ooi, Geometric phase and entanglement for a single qubit interacting with deformed-states superposition, Quantum. Inf. Process.* ***12****, 2177 (2013)* - ***K. Berrada****, F. F. Felipe, and S. Abdel-Khalek, Quantum correlations between qubit and its environment in terms of interatomic distance, Phys. Rev. A 85, 052315 (2012).* - ***K. Berrada****, Classical and Quantum Correlations for Two-Mode Coherent-State Superposition, Optics Communications.* 285, 2227 *(2012).* - ***K. Berrada*** *and H. Eleuch, Asymptotic Dynamics of quantum discord in open quantum systems, J. Phys. B: At. Mol. Opt. Phys.44, 145503 (2011).* *.,…* *…..*

Workshops and Conferences

	➢*Summer School on Quantum Many-Body Physics of Ultra-Cold Atoms and Molecules, International Centre for Theoretical Physics, Trieste, Italy, 2 July - 13 July 2012.* ➢*School and Workshop on Computational Algebra and Number Theory, International Centre for Theoretical Physics, Trieste, Italy, 18June - 29 June 2012.*

	➢*Workshop on Synergies between Field Theory and Exact Computational Methods in Strongly Correlated Quantum Matter, International Centre for Theoretical Physics, Trieste, Italy, 24 July - 29 July 2011.* ➢ *Fifth Stig Lundqvist Conference on the Advancing Frontiers of Condensed Matter Physics, International Centre for Theoretical Physics, Trieste, Italy, 11 July - 15 July 2011.* ➢ *Workshop and School on Topological Aspects of Condensed Matter Physics, International Centre for Theoretical Physics, Trieste, Italy, 27 June - 8 July 2011.* ➢ *School and Workshop on New Trends in Quantum Dynamics and Quantum Entanglement, International Centre for Theoretical Physics, Trieste, Italy, 14-18 February 2011.* ➢ *Workshop on Quantum Statistical Mechanics, Computation and Information, ICTP-Trieste, Italy, 14-18 June 2010.* ➢*Advanced School and Workshop on p-adic Analysis and Applications, ICTP-Trieste, Italy, 31 August- 18 September 2009.* ➢ *Summer College on Plasma Physics, ICTP-Trieste, Italy, 10-28 August 2009.* ➢ *2nd International Conference and Advanced School on Turbulent Mixing and Beyond, ICTP-Trieste, Italy, 27 July-7 August 2009.* ➢ *Summer College on Nonequilibrium Physics from Classical to Quantum Low Dimensional Systems, ICTP-Trieste, Italy, 6-24 July 2009.* ➢ *International Conference on Quantum Information Theory, Rabat, Morocco, 1-4 July 2009.* ➢ *Dynamical Systems, ICTP-Trieste, Italy, June 2008.* ➢ *Condensed Matter, El Jadida, Morocco, December 2006.*

Oral Communications

	➢ *Generality on quantum optics and information, Department of Computer Science, International Islamic University, Kuala Lumpur, Malaysia, 9 Augest 2012.* ➢ *Quantum correlations between qubit and its environment in terms of interatomic distance, Department of Computer Science, International Centre for Theoretical Physics, Trieste, Italy, June 2012.* ➢ *Quantum discord in quantum information theory, Departement de Fisica, Universitat de les IIIes Balears, Mallorca, Spain, November 2011.* ➢ *Bipartite Entanglement of Nonlinear Quantum Systems in the Context of the q-Heisenberg Weyl Algebra, Max Planck Institute for the Physics of Complex systems, Dresden, Germany, 2011.* ➢*Maximal entanglement of bipartite spin states in the context of quantum algebra, International Centre for Theoretical Physics, Trieste, Italy, 24 July - 29 July 2011.* ➢ *Generalized spin Coherent States: Construction and Physical Properties, International Centre for Theoretical Physics, Trieste, Italy, 11 July - 15 July 2011.* ➢ *Quantum entanglement, Fifth Stig Lundqvist Conference on the Advancing Frontiers of Condensed Matter Physics, International Centre for Theoretical Physics, Trieste, Italy, 11 July - 15 July 2011.* ➢ *Asymptotic Dynamics of quantum discord in open quantum systems, Workshop and School on Topological Aspects of Condensed Matter Physics, International Centre for Theoretical Physics, Trieste, Italy, 28 June 2011.* ➢ *Conference on Quantum Information Theory: Theoretical Foundations and applications, Science Faculty of Rabat, 15-17 May 2010 Morocco.* ➢ *International Conference on Quantum Information Theory: Theoretical Foundations and applications, Science Faculty of Rabat, 1-4 July 2009, Morocco.* ➢ *National conference of Theoretical Physics, Science Faculty of Oujda, 4-5 December 2009, Morocco.* ➢ *National Conference of Theoretical Physics, Science Faculty of Ben m'sik Casablanca, 24-25 December 2009, Morocco.*

Memberships

	➢ ***Associate Junior*** *at International Centre for Theoretical Physics (ICTP), Trieste, Italy* ➢*Member in the quality assurance and assessment of the Physics department, College of Science, Riyadh, Saudi Arabia.* ➢ *Theoretical Physics Network, RENAPT, Rabat, Morocco*

Reviewer

	➢*European Physical Journal D* ➢*Solid State Communications Journal* ➢ *Quantum Information Processing Journal* ➢*International Journal of Theoretical Physics* ➢ *Physics Letters A* ➢*Quantum Physics Letters* ➢ *International Journals*

Collaboration Groups

	➢ *Institute for Quantum Science and Engineering and Department of Physics and Astronomy, Texas A&M University, College Station, Texas 77843, USA.* ➢ *Institut für Angewandte Physik, Technische Universität Darmstadt, D-64289, Germany.* ➢*Department of Physics and Astronomy, Lehman College, The City University of New York, Bronx, NY 10468-1589, USA.* ➢*Laboratoire Collisions Agrégats Réactivité - UMR5589, Université Paul Sabatier, 31062 Toulouse Cedex 09, France.* ➢ *Quantum optics group of Department of Electronics, Quaid-i-Azam University, Islamabad 45320, Pakistan.* ➢ *Department of Computer Science, International Islamic University, Kuala Lumpur, Malaysia* ➢ *Departement de Fisica, Universitat de les IIIes Balears, Spain.* ➢ *Mathematics Department , Faculty of Science, Sohag University, 82524 Sohag, Egypt* ➢*Department of Physics, University of Malaya, Kuala Lumpur, Malaysia*

Skills, Competences and Scholarships

Languages	➢ *Arabic (Mother Tongue)* ➢ *English (good level)* ➢ *French (good level)*
Sciences	➢ *Quantum Optics.* ➢*Nanotechnology Sciences.* ➢*Quantum and Laser Science.*
Computer	➢ *Programming: Fortran, C.* ➢ *Scientific software: Mathemtica, Maple, Matlab, Python.* ➢ *Competent with most Microsoft Office programmes and some experience with Web Pages: Word, Excel, PowerPoint, Vision, Ms Project, Oracle SAP, Photoshop, Dreamweaver.*
Diverse	➢ *Group work: Organizing many international meetings :* - *Scientific Days, Laboratory of Theoretical Physics, 21-22 April 2010 Rabat, Morocco.* - *International Conference on Quantum Information Theory QIT:*

	Theoretical Foundations & Applications, Laboratory of Theoretical Physics, 1 - 4 July 2009 Rabat, Morocco. ➢ *Reading, cultural activities.* ➢ *Informatics, computers, software, hardware, photography, music.*
Scholarship	➢ *Averroes scholarship (July 2011-2012) stage at Departement de Fisica, Universitat de les IIIes Balears, Spain.* ➢ *DAAD scholarship (July 2010 – January 2011) stage at the Institut für Angewandte Physik, Technische Universität Darmstadt, Germany.* ➢ *Research scholarship (March 2008 – March 2011), Centre National de la Recherche Scientifique et Technique, Morocco.*