

MINISTRY OF HIGHER EDUCATION
AND SCIENTIFIC RESEARCH

CURRICULUM VITAE



- Name: Boudjema
- First names: Kheir-Eddine
- Date and place of birth: 02/17/1976 in Ain Beida W. Oum El Bouagui.
- Position held: Teacher-Researcher.
- Personal address: 14 Rue Loucif Ahmed Cité de l'espérance 04200 Ain Beida, Algeria.
- Professional address: Faculty of Science and Technology. University of Khenchela.
- Written, read or spoken languages: Arabic, French, English.
- Grade: Lecturer - class A- (since 2011).
- Research rank: Research Master.

Diplomas:

- Algerian Baccalaureate Technical Mathematics series - June 1993.
- D.E.S. in Physics, option Physique Théorique (Institute of Physics, University of Constantine) - June 1997.
- D.E.A. of Theoretical Physics (Institute of Physics, University of Constantine) - June 1998.
- Magister in Theoretical Physics - Mentouri University - Constantine - October 2000.
- Doctorat in Science - Option: Theoretical Physics - Mentouri University - Constantine - November 2007
- University Habilitation - Option: theoretical physics - Mentouri University - Constantine - November 2011.

Titles of theses defended

- Magister: *Some results for few Body Systems.*
- Doctorat in Science: *Lower Bounds for few Body Systems.*

Teaching:

- Numerical analysis – General physics – General Mathematics -Vibrations waves and Optics - Quantum Mechanics I and II - Thermodynamics and statistical physics – particle physics - atomic physics - atomic and nuclear physics.

• **Participation in thesis juries**

Examiner of several magister and doctoral theses

Areas of focus:

- I am interested in mathematical physics in general and particularly in cosmology and few-body systems (lower bounds, stability studies, Borromean systems, etc.). cosmology and general relativity

- **Research Projects:**

- Member of the research project entitled: *Some Problems of Mathematical Physics*, project approved from 1 January 2007 to 31 December 2009 under the code number D00920060053 **domiciled at the University Mentouri- Constantine (Laboratory of Theoretical Physics, Department of Physics, Faculty of Exact Sciences).**

- Member of the research project entitled: *Application of Mathematical Methods to the Problem Solving of Theoretical Physics*, project approved from 1 January 2010 under the code number D00920090096 **domiciled at the University Mentouri- Constantine (Laboratory of Theoretical Physics, Department of Physics, Faculty of Exact Sciences).**

- Head of the research project entitled: *Physical Modeling of the Static Characteristics of the C-CNTFET Carbon Nanotubes Transistor*, approved project from 1 January 2014 under code number D03520130003 **domiciled at Abbes Laghrour University -Khenchela- (Laboratory of Sensors, Instrumentation and Processes (LCIP)).**

- **Publications and Communications:**

- **Communications:**

- S.R. Zouzou, Kh. Boudjemaa, B. Bouaouina; Illustration of a Methodology for Obtaining Lower Bounds for the Ground State Energies of Few-Body Systems in the Four-Body Case, Communication Internationale aux Sixièmes Journées de Chimie Quantique (J.E.C.Q.6), Université Mentouri- Constantine, Laboratoire de Chimie des Matériaux (L.C.M.), Constantine les 17 et 18 Mai 2003. Paper published in: **Proceedings of the Sixth Study Days of Quantum Chemistry (J.E.C.Q.6)**, Fundamental Quantum Chemistry and its Applications, Mentouri-Constantine University October 2003.

- **Publications:**

[1] Kh. Boudjemaa and S.R. Zouzou, *Optimized Lower Bound on N-body Hamiltonians*, J. Phys. A: Math. Gen **39** (2006) 7383-7409.

[2] Kh. Boudjemaa, and S. R. Zouzou, *An analytical proof of saturability of an optimized lower bound for N-body Hamiltonians, for some mass configurations, with Arbitrary N*, J. Phys. A: Math. Gen **39** (2006) 5857-5872.

[3] Kh. Boudjemaa, and S. R. Zouzou, *Optimized Lower Bounds for Five-Body Hamiltonians*, Few-Body Syst (2009) 46: 199-220. OID 10.1007/s00601-009-0061-4

[4] Kh. Boudjemaa, and S.R. Zouzou, *Comparison of Lower bounds on N-body Hamiltonians*, ACTA PHYSICA POLONICA B Vol 41, No 11 : 2399-2422 (2010).

[5] Kh. Boudjemaa, M. Guenouche and S. R. Zouzou, *Time delay in the Einstein-Straus solution*, General Relativity and Gravitation 43. 1707-1731 (2011).