

## CURRICULUM VITAE

### PERSONAL DATA

<b>Name</b>	Mohannad Mahmoud Ali Al-Hmoud
<b>Nationality</b>	Jordanian
<b>Position</b>	Assistant Professor
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### EDUCATION

<b>Year</b>	<b>Academic Degree</b>	<b>Institution</b>
2008-2013	PhD	University of Paderborn, Germany
2004-2007	MSc	University of Stuttgart, Germany
1999-2003	Bachelor	Jordan University of Science and Technology, Jordan

### WORK EXPERIENCE

<b>Period</b>	<b>Position</b>	<b>Address</b>
Since Aug 2016	Assistant Professor of Physics, Al-Imam Mohammad Ibn Saud Islamic University	Saudi Arabia
Jun 2008 – Aug 2012	Research assistant in the group of Nanostructure Optoelectronics, Department of Physics, University of Paderborn	Paderborn, Germany
Aug 2005 – Jul 2008	Research assistant at the 5th Institute of Physics, University of Stuttgart	Stuttgart, Germany
Sep 2003 – Jun 2004	Teacher of physics and science	Jordan

## RESEARCH INTERESTS

- Simulation of photonic crystals (Finite-Difference Time-Domain method)
- Spectroscopy of semiconductor nanostructures (Quantum Dots)
- Photonic crystal nanocavities
- Light-matter interaction in optical cavities
- Color centers in diamond
- Optical sensors

## PUBLICATIONS

- G. Balasubramanian, I.Y. Chan, R. Kolesov, M. Al-Hmoud, et al., Nanoscale imaging magnetometry with diamond spins under ambient conditions, **Nature** 455, 648-651 (2008)
- S Michaelis de Vasconcellos, S. Gordon, D. Mantej, Y. A. Leier, M. Al-Hmoud, W. Quiring and A. Zrenner, Chapter: "Coherent optoelectronics with quantum dots" in Quantum optics with semiconductor nanostructures, Edited by F. Jahnke, University of Bremen, Germany (Woodhead Publishing Limited, 2012)
- W. Quiring, M. Al-Hmoud, A. Zrenner, et al., Photonic crystal cavities with metallic Schottky contacts, **Appl. Phys. Lett.** 107, 041113 (2015)
- Adel Al Rehaily, Saleh Assahaly, Mohannad Al Hmoud and Smail Bougouffa, Ground-State Cooling in Cavity Optomechanics with and without Rotating-Wave Approximation, **AIP Conference Proceedings** 1976, 020024 (2018)
- Saud Al-Awfi, Mohannad Al-Hmoud, and Smail Bougouffa, Ground-State Cooling in Cavity Optomechanics with Unresolved Sidebands, **EPL**, 123, 14005 (2018)
- Smail Bougouffa & Mohannad Al-Hmoud, Bipartite Entanglement in Optomechanical Cavities Driven by Squeezed Light, **International Journal of Theoretical Physics** 59, 1699–1716 (2020)
- Mohannad Al-Hmoud, and Smail Bougouffa, Simultaneous high Q/V-ratio and optimized far-field emission in diamond slot-bridge nanobeam cavity, **Results in Physics**, 26, 104314 (2021)
- Mohannad Al-Hmoud, Rasha Alyahyan, High sensitivity and low detection limit sensor based on a slotted nanobeam cavity, **Phot. Lett. Pol.** 14, 3, 59, (2022)
- Smail Bougouffa, Mohannad Al-Hmoud, and Jabir Wali Hakami, Probing Quantum Correlations in a Hybrid Optomechanical System, **International Journal of Theoretical Physics** 61, 190 (2022)

