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Education

Master of Science in Physics | 2010 – 2013 | Shahid Chamran University

- Thesis: An investigation of efficiency and field profile of quasi-nondiffracting Bessel-Gauss beams in pulsed second harmonic generation under thermal effects.

Bachelor of Science in Physics | 2005 – 2009 | Payame Noor University

Fields of Interest

- Data mining
- Medical imaging
- Data science applications in business intelligence
- Machine learning
- High Performance Computing
- Applied Optimization

Skills

- Operating System: Linux, Windows
- Programming Skills: Fluent with FORTRAN and C++, acquainted with HPC based on CPU (MPI) and Matlab, Learning Python and R
- Software: acquainted with Comsol MultiPhysics, Maple, Latex, Microsoft Office (Word, Excel, Power Point), Learning SAS

Publications

Supervisor: M. Sabaeian

1. M. Sabaeian (supervisor), F. S. Jalil-Abadi, M. M. Rezaee, and **A. Motazedian**, "Heat coupled Gaussian continuous-wave double-pass type-II second harmonic generation: inclusion of thermally induced phase mismatching and thermal lensing," **Optics Express** 22, 25615–25628 (2014).
2. M. Sabaeian (supervisor), **A. Motazedian**, M. M. Rezaee, and F. S. Jalil-Abadi, "Bessel-Gauss beams: pulsed Bessel-Gauss beams: a depleted wave model for type II second harmonic generation," **Applied Optics** 53, 7691–7696 (2014).
3. M. M. Rezaee, M. Sabaeian (supervisor), **A. Motazedian**, F. S. Jalil-Abadi, H. Askari, and I. Khazrak, "Thermally induced phase mismatching in a repetitively Gaussian pulsed pumping KTP crystal: a spatiotemporal treatment," **Applied Optics**. 54, 4781-4788 (2015).
4. M. M. Rezaee, M. Sabaeian (supervisor), **A. Motazedian**, F. S. Jalil-Abadi, and A. Khaledi-Nasab, "Complete anisotropic time-dependent heat equation in KTP crystal under repetitively pulsed Gaussian beams: A numerical approach," **Applied Optics** 54, 1241–1249 (2015).

5. M. Sabaiean (supervisor), F. S. Jalil-Abadi, M. M. Rezaee, and **A. Motazedian**, "Temperature increase effects on a double-pass cavity type II second harmonic generation: a model for depleted Gaussian continuous waves," **Applied Optics** 54, 869–875 (2015).
 6. M. Sabaiean (supervisor), F. S. Jalil-Abadi, M. M. Rezaee, and **A. Motazedian**, "Temperature Distribution in a Gaussian End-Pumped Nonlinear KTP Crystal: the Temperature Dependence of Thermal Conductivity and Radiation Boundary Condition," **Brazilian Journal of Physics** (2015) 45:1–9
- **16 poster and/or oral presentations in national & international conferences (2012-2018)**

Professional experience

2015 – 2019: Adjunct professor, Azad University, Ghaderabad, Iran

2013 – 2019: Teaching Entrance Exams

Honors and awards

- 2012 & 2013: Excellent early stage researcher award in the graduate class, Department of Physics, Shahid Chamran University, Ahvaz, Iran
- 2010 – 2013: Ranked 2nd in the MSc class
- 2005 – 2009: Ranked 1st in the BSc class