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Special issue on quantum control theory for coherence and information dynamics

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Special Issue on Quantum Control Theory for Coherence and Information Dynamics

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Journal of Physics B: Atomic, Molecular and Optical Physics (J Phys B) is delighted to announce a forthcoming special issue on Quantum Control Theory for Coherence and Information Dynamics, to appear in summer 2011, and invites you to submit a paper.

Recent advances in coherent quantum technologies and robust quantum information processing require the dynamics of realistic open quantum systems to be characterized and controlled with unprecedented accuracy and efficiency. The purpose of this special issue will be to provide an account of the state-of-the-art in this fast-moving and cross-disciplinary field, which is increasingly bringing together physicists, mathematicians, chemists, engineers, and quantum information theorists.

Broad topics to be covered will include, but will not be limited to:

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- Optimal, adaptive, and robust quantum control algorithms
- Quantum control of many-body systems and entanglement
- Fundamental limits to quantum control

You are invited to submit your article by 31 December 2010. Submissions received after this date will be considered for the journal, but may not be included in the special issue. All submitted articles will be fully refereed to the journal’s usual high standards and corresponding authors whose articles are published in the special issue will receive a complimentary copy of the issue. Upon publication, the issue will be widely promoted to the atomic, molecular and optical physics community, ensuring that your work receives maximum visibility.

Guest Editors
- Lorenza Viola Dartmouth College, USA
- David Tannor Weizmann Institute, Israel

How to submit your paper

- E-mail files as attachments to jphysb@iop.org
- Use our submission facility at authors.iop.org

All submissions should be clearly marked 'Quantum Control Theory for Coherence and Information Dynamics'.

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