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Odborný profil

Michal Sedlák

Zoznam publikovaných prác: (8)

1. Mário Ziman, and Michal Sedlák,
„Single-shot discrimination of quantum unitary processes“,
Journal of Modern Optics, Volume 57, Issue 3, Pages 253-259 (2010)
[IF=1.062] Typ: ADCA
2. Michal Sedlák,
„Quantum theory of unambiguous measurements“,
Acta Physica Slovaca 59, No.6, 653-792 (2009)
[IF=7.091] Typ: ADDA
3. Mário Ziman, Teiko Heinosaari, and Michal Sedlák,
„Unambiguous comparison of quantum measurements“,
Phys. Rev. A 80, 052102 (2009)
[IF=2.908] Typ: ADCA
4. Michal Sedlák, Mário Ziman, Vladimír Bužek, and Mark Hillery,
„Unambiguous identification of coherent states II: Multiple resources“,
Phys. Rev. A 79, 062305 (2009)
[IF=2.908] Typ: ADCA
5. Michal Sedlák, and Mário Ziman,
„Unambiguous comparison of unitary channels“,
Phys. Rev. A 79, 012303 (2009)
[IF=2.908] Typ: ADCA

6. Michal Sedlák, Mário Ziman, Vladimír Bužek, and Mark Hillery, „*Unambiguous comparison of ensembles of quantum states*“, Phys. Rev. A 77, 042304 (2008)
[IF=2.908] Typ: ADCA
7. Michal Sedlák, and Martin Plesch, „*Towards optimization of quantum circuits*“, Central European Journal of physics, vol. 6 no.1, 128-134 (2008)
[IF=0.45] Typ: ADCA
8. Michal Sedlák, Mário Ziman, Ondřej Příbyla, Vladimír Bužek, and Mark Hillery, „*Unambiguous identification of coherent states: Searching a quantum database*“, Phys. Rev. A 76, 022326 (2007)
[IF=2.893] Typ: ADCA

Zoznam citácií: (8CC +1NCC)

Michal Sedlák, Mário Ziman, Ondřej Příbyla, Vladimír Bužek, and Mark Hillery, „*Unambiguous identification of coherent states: Searching a quantum database*“, Phys. Rev. A 76, 022326 (2007), 7 citácií:

J. Bergou, „Discrimination of quantum states“, Journal of Modern Optics, Volume: 57 Issue: 3 Sp. Iss. Pages: 160-180 (2010)

C. Wittmann, U. Andersen, G. Leuchs, „Discrimination of optical coherent states using a photon number resolving detector“, Journal of Modern Optics, Volume: 57 Issue: 3 Sp. Iss. Pages: 213-217 (2010)

L. Bartušková, A. Černochoch, J. Soubusta, and M. Dušek, „Programmable discriminator of coherent states: Experimental realization“, Phys. Rev. A 77, 034306 (2008)

Bing He and J. Bergou, „Coherent-states engineering with linear optics: Possible and impossible tasks“, Phys. Rev. A 77, 053818 (2008)

M. Mičuda, M. Ježek, M. Dušek, and J. Fiurášek, „Experimental realization of a programmable quantum gate“, Phys. Rev. A 78, 062311 (2008)

C. S. Hamilton, H. Lavička, E. Andersson, J. Jeffers, and I. Jex, „Quantum public key distribution with imperfect device components“, Phys. Rev. A 79, 023808 (2009)

R. V. Ramos, F. A. Mendonca, „Quantum bit commitment protocol without quantum memory“, arXiv:0801.0690 (2008)

Michal Sedlák, Mário Ziman, Vladimír Bužek, and Mark Hillery, „*Unambiguous comparison of ensembles of quantum states*“, Phys. Rev. A 77, 042304 (2008), 1 citácia:

C. S. Hamilton, H. Lavička, E. Andersson, J. Jeffers, and I. Jex, „Quantum public key distribution with imperfect device components“, Phys. Rev. A 79, 023808 (2009)

Michal Sedlák, Mário Ziman, Vladimír Bužek, and Mark Hillery, „*Unambiguous identification of coherent states II: Multiple resources*“, Phys. Rev. A 79, 062305 (2009), 1 citácia:

C. Wittmann, U. Andersen, G. Leuchs, „Discrimination of optical coherent states using a photon number resolving detector“, Journal of Modern Optics, Volume: 57 Issue: 3 Sp. Iss. Pages: 213-217 (2010)

Účasť v domácich a zahraničných projektoch:

Riešiteľ štyroch projektov 7. a 6. rámcového programu (COQUIT, HIP, QAP, CONQUEST), dvoch projektov APVV (QIAM, KVAP), jedného projektu APVT a projektu CE QUTE SAV.

Vystúpenia na odborných podujatiach a konferenciách:

Prednášky (7):

„Unambiguous comparison of Unitary Channels“, 6th Central European Quantum Information Processing Workshop, 1. – 4.6.2009, Jindřichuv Hradec, Česká republika

„Unambiguous identification of coherent states“, Young European Physicists meeting, 17. - 21.9.2007, Frauenchiemsee, Nemecko

„Unambiguous identification of coherent states“, Identifying quantum states and operations, 20. - 24.6. 2007, Budmerice, Slovensko

„Unambiguous identification of coherent states“, Informal Quantum Information Gathering (IQING), Innsbruck, 11. - 14.4. 2007, Rakúsko

„Unambiguous coherent state identification“, Young European Physicists meeting, Budmerice, 11.- 15.12. 2006, Slovensko

„Decompositions of unitary matrices“, Informal Quantum Information Gathering (IQING), Paris, 23. - 25.7. 2005, Francúzsko

„Decompositions of unitary matrices into Quantum logic circuits“, Young European Physicists meeting, Budmerice, 30.11.- 4.12. 2004, Slovensko

Posterové prezentácie (6):

Michal Sedlák, Mário Ziman, Vladimír Bužek, and Mark Hillery, „*Unambiguous identification of coherent states: Multiple resources, repeated use & optimality*“, Quantum Optics VII: Quantum Engineering of Atoms and Photons, 8 – 12.6.2009, Zakopane, Poľsko

Michal Sedlák, Mário Ziman, Vladimír Bužek, and Mark Hillery, „*Unambiguous comparison of ensembles of quantum states*“, QICS Workshop on "Foundational Structures for Quantum Information and Computation", 14 – 20.9.2008, Obergurgl, Rakúsko

Michal Sedlák, Mário Ziman, Vladimír Bužek, and Mark Hillery, „*Unambiguous comparison of ensembles of quantum states*“, 5th Central European Quantum Information Processing Workshop, 5-8 June 2008, Telč, Česká republika

Michal Sedlák, Mário Ziman, Ondřej Příbyla, Vladimír Bužek, and Mark Hillery, „*Unambiguous identification of coherent states: Searching a quantum database*“, International Summer School in Quantum Information Processing and Control (QUIC 2007), 26 - 31.8.2007, Maynooth, Írsko

Michal Sedlák, Ondřej Příbyla, Mário Ziman, Vladimír Bužek, and Mark Hillery, „*Unambiguous coherent state identification*“, QUROPE Winter School, 18 - 24.2. 2007, Obergurgl, Rakúsko

Michal Sedlák, and Martin Plesch, „*Towards optimization of quantum circuits*“, International Summer School and workshop on Quantum Information, 25 - 30.9.2005, Drážďany, Nemecko

Zoznam patentov a patentových prihlášok: –

Aplikácie výsledkov: –

Absolvované študijné pobyty:

Postdoktorálny pobyt v skupine, prof. G. M. D'Ariana, Dipartimento di Fisica "A. Volta", Università degli studi di Pavia, Taliansko, práve prebieha, plánované trvanie 1 rok

Semester "Quantum information, computation and complexity" na Institute Henry Poincare, Paríž, Francúzsko, 3 mesiace

Letná škola: "International Summer School on Quantum Information" Drážďany, Nemecko, 1 mesiac