

Personal Particulars	
Name	Tomasz Paterek
Date of birth	17 th January 1978
Birthplace	Hrubieszów, Poland (Polish citizenship)
Telephone	+65 9115 9834
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Education & Work	
Since 2012	Assistant Professor at SPMS (Nanyang Technological University)
2012-2015	Research Assistant Professor at CQT (National University of Singapore)
2008-2012	Research Fellow at CQT (National University of Singapore)
2007-2008	Junior Scientist at IQOQI Vienna (Austrian Academy of Sciences)
2016	Habilitation with distinction at the University of Gdańsk, Poland Theme: <i>Nonclassical correlations in quantum systems</i> Degree received on 17 th March 2016
2002-2007	Doctoral studies finished with distinction at the University of Gdańsk, Poland Thesis: <i>Quantum communication</i> Supervisor: Prof. Marek Żukowski Doctoral degree received on 24 th May 2007
1997-2002	Physics studies at the Marie Curie-Skłodowska University in Lublin, Poland Thesis: <i>Methods and role of projections in quantum mechanics</i> Supervisor: Prof. Andrzej Gózdź Master of Science degree received on 17 th September 2002
Professional Service	
Editor	Int. J. Quant. Inf. (Since 2014)
Reviewer	For more than 30 international science journals
Grant Reviewer	For 3 funding agencies
Organizer	Co-organizer of 5 workshops and 2 big conferences
Statement on publications list	
No. papers	57 (1 in Rev. Mod. Phys., 2 in Nature, 1 in Nature Phys., 15 in Phys. Rev. Lett.)
No. citations	2450 (Web of Science)
H-index	17 (17 of the papers were cited at least 17 times each)
Grants	
2018-2020	National Science Centre grant <i>Beethoven</i> (Poland) <i>Quantum correlations - from few to many particles</i> (PLN 1.2M, I)

2017-2018	Ministry of Education Tier 1 Grant (Singapore) <i>Towards experimental tests of gravitationally-induced...</i> (SGD 80k, PI)
2016-2019	Ministry of Education Tier 2 Grant (Singapore) <i>New correlation quantifiers and their experimental implications</i> (SGD 600k, PI)
2015-2018	National Science Centre grant <i>Harmonia</i> (Poland) <i>New fundamental bounds on correlations of a strictly quantum...</i> (PLN 1.3M, I)
2014-2016	Ministry of Education Tier 1 Grant (Singapore) <i>Towards quantum biology with insects...</i> (SGD 85k, PI)
2014-2016	Ministry of Education Tier 1 Grant (Singapore) <i>Quantum entanglement in space and in time</i> (SGD 100k, PI)
2013-2017	National Science Centre grant <i>Sonata Bis</i> (Poland) <i>Nonclassical correlations and their structure...</i> (PLN 350k, I)
2012-2016	Start-up grant of Nanyang Technological University (Singapore) <i>Quantum correlations</i> (SGD 200k, PI)
Publications	
[60]	Z. Zhao, S. Mondal, M. Markiewicz, A. Rutkowski, B. Dakić et al. <i>Interaction-free measurements cannot be perfect</i> arXiv:1801.05578
[59]	M. C. Tran, R. Ramanathan, M. McKague, D. Kaszlikowski, T. Paterek <i>Bell monogamy relations in arbitrary qubit networks</i> arXiv:1801.03071
[58]	T. Krisnanda, C. Marletto, V. Vedral, M. Paternostro, T. Paterek <i>Probing quantum features of photosynthetic organisms</i> arXiv:1711.06485
[57]	L.-J. Kong, H. Crepaz, A. Górecka, A. Urbanek, R. Dumke, T. Paterek <i>In-vivo biomagnetic characterisation of the American cockroach</i> Sci. Rep. 8 , 5140 (2018) Covered by MIT Technology Review, D-News, India Times, The Register
[56]	T. Krisnanda, M. Zuppardo, M. Paternostro, T. Paterek <i>Revealing non-classicality of inaccessible objects</i> Phys. Rev. Lett. 119 , 120402 (2017)
[55]	A. Chia, T. Paterek, L. C. Kwek <i>Hitting statistics from quantum jumps</i> Quantum 1 , 19 (2017)
[54]	M. C. Tran, M. Zuppardo, A. de Rosier, L. Knips, W. Laskowski et al. <i>Genuine N-partite entanglement without N-partite correlation functions</i> Phys. Rev. A 95 , 062331 (2017) Editors' suggestion
[53]	M. Grassl, D. McNulty, L. Mista Jr., T. Paterek <i>Small sets of complementary observables</i> Phys. Rev. A 95 , 012118 (2017) Editors' suggestion
[52]	T. Le, F. A. Pollock, T. Paterek, M. Paternostro, K. Modi <i>Divisible quantum dynamics satisfies temporal Tsirelson's bound</i> J. Phys. A 50 , 055302 (2017)

[51]	M. C. Tran, B. Dakić, W. Laskowski, T. Paterek <i>Correlations between outcomes of random measurements</i> Phys. Rev. A 94 , 042302 (2016)
[50]	A. Chia, A. Górecka, P. Kurzyński, T. Paterek, D. Kaszlikowski <i>Coherent chemical kinetics as quantum walks. I. Radical-pair reactions in...</i> Phys. Rev. E 93 , 032408 (2016)
[49]	A. Chia, K. C. Tan, Ł. Paweła, P. Kurzyński, T. Paterek, D. Kaszlikowski <i>Coherent chemical kinetics as quantum walks. I. Reaction operators for...</i> Phys. Rev. E 93 , 032407 (2016)
[48]	M. Zuppardo, T. Krisnanda, T. Paterek, S. Bandyopadhyay, A. Banerjee et al. <i>Excessive distribution of quantum entanglement</i> Phys. Rev. A 93 , 012305 (2016)
[47]	M. C. Tran, B. Dakić, F. Arnault, W. Laskowski, T. Paterek <i>Quantum entanglement from random measurements</i> Phys. Rev. A 92 , 050301R (2015)
[46]	S. Brierley, A. Kosowski, M. Markiewicz, T. Paterek, A. Przysiężna <i>Nonclassicality of temporal correlations</i> Phys. Rev. Lett. 115 , 120404 (2015) Covered by G. Musser in the Quanta Magazine.
[45]	C. Schwemmer, L. Knips, M. C. Tran, A. de Rosier, W. Laskowski, et al. <i>Genuine multipartite entanglement without multipartite correlations</i> Phys. Rev. Lett. 114 , 180501 (2015)
[44]	M. C. Tran, W. Laskowski, T. Paterek <i>The Werner gap in the presence of simple coloured noise</i> J. Phys. A 47 , 424025 (2014)
[43]	T. K. Chuan, T. Paterek <i>Separable states improve protocols with finite randomness</i> New J. Phys. 16 , 093063 (2014)
[42]	M. Markiewicz, A. Przysiężna, S. Brierley, T. Paterek <i>Genuinely multi-point temporal quantum correlations and universal...</i> Phys. Rev. A 89 , 062319 (2014)
[41]	M. Markiewicz, P. Kurzyński, J. Thompson, S.-Y. Lee, A. Soeda, et al. <i>Unified approach to contextuality, non-locality, and temporal correlations</i> Phys. Rev. A 89 , 042109 (2014)
[40]	B. Dakić, T. Paterek, Č. Brukner <i>Density cubes and higher-order interference theories</i> New J. Phys. 16 , 023028 (2014)
[39]	A. Fedrizzi, M. Zuppardo, G. G. Gillett, M. A. Broome, M. de Almeida, et al. <i>Experimental distribution of entanglement with separable carriers</i> Phys. Rev. Lett. 111 , 230504 (2013) Editors' suggestion & Viewpoint by C. Silberhorn Covered on 2physics.com
[38]	W. Laskowski, C. Schwemmer, D. Richart, L. Knips, T. Paterek, H. Weinfurter <i>Optimized state-independent entanglement detection based on...</i> Phys. Rev. A 88 , 022327 (2013)

[37]	W. Laskowski, M. Markiewicz, T. Paterek, R. Weinar <i>Entanglement witnesses with variable number of local measurements</i> Phys. Rev. A 88 , 022304 (2013)
[36]	J. N. Bandyopadhyay, T. Paterek, D. Kaszlikowski <i>Reply to comment on quantum coherence and sensitivity of avian...</i> Phys. Rev. Lett. 110 , 178901 (2013)
[35]	M. Markiewicz, W. Laskowski, T. Paterek, M. Żukowski <i>Detecting genuine multipartite entanglement of pure states with bipartite...</i> Phys. Rev. A 87 , 034301 (2013)
[34]	K. Modi, A. Brodutch, H. Cable, T. Paterek, V. Vedral <i>The classical-quantum boundary for correlations: discord and related measures</i> Rev. Mod. Phys. 84 , 1655 (2012)
[33]	J. N. Bandyopadhyay, T. Paterek, D. Kaszlikowski <i>Quantum coherence and sensitivity of avian magnetoreception</i> Phys. Rev. Lett. 109 , 110502 (2012) Covered on physicsworld.com
[32]	W. Laskowski, M. Markiewicz, T. Paterek, M. Wieśniak <i>Incompatible local hidden-variable models of quantum correlations</i> Phys. Rev. A 86 , 032105 (2012)
[31]	T. K. Chuan, J. Maillard, K. Modi, T. Paterek, M. Paternostro, M. Piani <i>Quantum discord bounds the amount of distributed entanglement</i> Phys. Rev. Lett. 109 , 070501 (2012)
[30]	B. Dakić, Y. O. Lipp, X. Ma, M. Ringbauer, S. Kropatschek, S. Barz, et al. <i>Quantum discord as resource for remote state preparation</i> Nature Phys. 8 , 666 (2012) News & Views by A. Datta in Nature Photonics.
[29]	W. Laskowski, D. Richart, C. Schwemmer, T. Paterek, H. Weinfurter <i>Experimental Schmidt decomposition and state independent entanglement...</i> Phys. Rev. Lett. 108 , 240501 (2012)
[28]	W. Laskowski, M. Markiewicz, T. Paterek, M. Żukowski <i>Correlation tensor criteria for genuine multiqubit entanglement</i> Phys. Rev. A 84 , 062305 (2011)
[27]	S.-Y. Lee, T. Paterek, H. S. Park, H. Nha <i>Linear optical scheme for producing polarization-entangled NOON states</i> Opt. Comm. 285 , 307 (2011)
[26]	R. Ramanathan, T. Paterek, A. Kay, P. Kurzyński, D. Kaszlikowski <i>Local realism of macroscopic correlations</i> Phys. Rev. Lett. 107 , 060405 (2011)
[25]	M. Wieśniak, T. Paterek, A. Zeilinger <i>Entanglement in mutually unbiased bases</i> New J. Phys. 13 , 053047 (2011)
[24]	A. Fedrizzi, B. Škerlak, T. Paterek, M. P. de Almeida, A. G. White <i>Experimental information complementarity of two-qubit states</i> New J. Phys. 13 , 053038 (2011)
[23]	P. Kurzyński, T. Paterek, R. Ramanathan, W. Laskowski, D. Kaszlikowski <i>Correlation complementarity yields Bell monogamy relations</i> Phys. Rev. Lett. 106 , 180402 (2011)

[22]	T. Paterek, P. Kurzyński, D. K. L. Oi, D. Kaszlikowski <i>Reference frames for Bell inequality violation in the presence of...</i> New J. Phys. 13 , 043027 (2011)
[21]	T. Paterek, B. Dakić, Č. Brukner <i>Reply to comment on mutually unbiased bases, orthogonal Latin squares...</i> Phys. Rev. A 83 , 036102 (2011)
[20]	T. Paterek, B. Dakić, Č. Brukner <i>Theories of systems with limited information content</i> New J. Phys. 12 , 053037 (2010)
[19]	M. Pawłowski, J. Kofler, T. Paterek, M. Seevinck, Č. Brukner <i>Nonlocal setting and outcome information for violation of Bell's inequality</i> New J. Phys. 12 , 083051 (2010)
[18]	T. Paterek, M. Pawłowski, M. Grassl, Č. Brukner <i>On the connection between mutually unbiased bases and orthogonal Latin...</i> Phys. Scr. T140 , 014031 (2010)
[17]	W. Laskowski, T. Paterek, Č. Brukner, M. Żukowski <i>Entanglement and communication-reducing properties of noisy N-qubit states</i> Phys. Rev. A 81 , 042101 (2010)
[16]	K. Modi, T. Paterek, W. Son, V. Vedral, M. Williamson <i>Unified view of quantum and classical correlations</i> Phys. Rev. Lett. 104 , 080501 (2010)
[15]	T. Paterek, J. Kofler, R. Prevedel, P. Klimek, M. Aspelmeyer, A. Zeilinger, <i>et al.</i> <i>Logical independence and quantum randomness</i> New J. Phys. 12 , 013019 (2010) Chosen among New Journal of Physics Best of 2010 Highlighted in Euphysics News 41 , 10 (2010)
[14]	M. Pawłowski, T. Paterek, D. Kaszlikowski, V. Scarani, A. Winter, M. Żukowski <i>Information causality as a physical principle</i> Nature 461 , 1101 (2009)
[13]	P. Badziąg, Č. Brukner, W. Laskowski, T. Paterek, M. Żukowski <i>Experimentally accessible geometrical separability criteria</i> Phys. Scr. T135 , 014002 (2009)
[12]	T. Paterek, B. Dakić, Č. Brukner <i>Mutually unbiased bases, orthogonal Latin squares, and hidden-variable models</i> Phys. Rev. A 79 , 012109 (2009)
[11]	B. Dakić, M. Šuvakov, T. Paterek, Č. Brukner <i>Efficient hidden-variable simulation of measurements in quantum experiments</i> Phys. Rev. Lett. 101 , 190402 (2008) Editors' suggestion
[10]	P. Badziąg, Č. Brukner, W. Laskowski, T. Paterek, M. Żukowski <i>Experimentally friendly geometrical criteria for entanglement</i> Phys. Rev. Lett. 100 , 140403 (2008)
[9]	T. Paterek, A. Fedrizzi, S. Gröblacher, T. Jennewein, M. Żukowski, <i>et al.</i> <i>Experimental test of non-local realistic theories without the rotational...</i> Phys. Rev. Lett. 99 , 210406 (2007)

[8]	T. Paterek <i>Measurements on composite qudits</i> Phys. Lett A 367 , 57 (2007)
[7]	S. Gröblacher, T. Paterek, R. Kaltenbaek, Č. Brukner, M. Żukowski, <i>et al.</i> <i>An experimental test of non-local realism</i> Nature 446 , 871 (2007); Corrigendum: Nature 449 , 252 (2007) News&Views by A. Aspect Cover story of New Scientist (23 June 2007) & Seed Magazin (June 2008)
[6]	K. Nagata, W. Laskowski, T. Paterek <i>Bell inequality with an arbitrary number of settings and its applications</i> Phys. Rev. A 74 , 62109 (2006)
[5]	J. Kofler, T. Paterek, Č. Brukner <i>Experimenter's freedom in Bell's theorem and quantum cryptography</i> Phys. Rev. A 73 , 22104 (2006)
[4]	T. Paterek, W. Laskowski, M. Żukowski <i>On series of multiqubit Bell's inequalities</i> Mod. Phys. Lett. A 21 , 111 (2006)
[3]	W. Laskowski, T. Paterek, M. Żukowski, Č. Brukner <i>Tight multipartite Bell's inequalities involving many measurement settings</i> Phys. Rev. Lett. 93 , 200401 (2004)
[2]	T. Paterek <i>Comment on "On the Role of Locality Condition in Bell's Theorem"</i> Int. J. Quant. Inf. 2 , 419 (2004)
[1]	Č. Brukner, T. Paterek, M. Żukowski <i>Quantum communication complexity protocols based on higher-dimensional...</i> Int. J. Quant. Inf. 1 , 519 (2003)