

**Fișa de verificare**  
**a îndeplinirii standardelor minime necesare și obligatorii**  
**pentru conferirea titlurilor didactice din învățământul superior**  
**și a gradelor profesionale de cercetare – dezvoltare**

**Perspectiva b)**

An	Revistă/ Conferință/ Serie	Liste utilizate	Cat.	Detalii lucrare	Nr autori	Punct aj
2013	LNCS		C	Diana-Elena Gratie, Bogdan Iancu, Ion Petre, ODE analysis of biological systems. In: Formal Methods for Dynamical Systems. Marco Bernardo, Erik de Vink, Alessandra Di Pierro, Herbert Wiklicky (Eds.), Lecture Notes in Computer Science 7938, Springer, 29-62, 2013. <a href="https://link.springer.com/chapter/10.1007/978-3-642-38874-3_2">https://link.springer.com/chapter/10.1007/978-3-642-38874-3_2</a>	3	2
2014	LNCS		C	Bogdan Iancu, Diana-Elena Gratie, Sepinoud Azimi, Ion Petre, On the Implementation of Quantitative Model Refinement. In: Algorithms for Computational Biology. Adrian-Horia Dediu, Carlos-Martin Vide, Bianca Truthe (Eds.), Lecture Notes in Computer Science Springer 8542, 95-106, 2014 <a href="https://link.springer.com/book/10.1007/978-3-319-07953-0">https://link.springer.com/book/10.1007/978-3-319-07953-0</a>	4	1
2014	Theory Day in Computer Science 2014, asociat ICTAC	CORE2014	C	Diana-Elena Gratie, Ion Petre, Hiding the combinatorial state space explosion of biomodels through colored Petri nets. Analele Universității din București. Editura Universității din București, LXI:23-41, 2014	2	2
2015	BioPPN 2015, satellite event of PETRI NETS 2015 and ACSD 2015	CORE2017	C	Diana-Elena Gratie, Ion Petre. Full structural model refinement as type refinement of colored Petri nets. In: Proceedings of the 6th International Workshop on Biological Processes and Petri Nets. Monika Heiner, Annegret K. Wagler (Eds.), CEUR Workshop Proceedings 1373, 70–84, 2015 <a href="https://ceur-ws.org/Vol-1373/">https://ceur-ws.org/Vol-1373/</a>	2	2
2015	LNCS		C	Sepinoud Azimi, Eugen Czeizler, Cristian Gratie, Diana Gratie, Bogdan Iancu, Nebiat Ibssa, Ion Petre, Vladimir Rogojin, Tolou Shadbahr, Fatemeh Shokri, An Excursion Through Quantitative Model Refinement. In: Membrane Computing. Grzegorz Rozenberg, Arto Salomaa, José M. Sempere, Claudio Zandron (Eds.), Lecture Notes in Computer Science 9504, Springer, 25-47, 2015 <a href="https://link.springer.com/chapter/10.1007/978-3-319-28475-0_3">https://link.springer.com/chapter/10.1007/978-3-319-28475-0_3</a>	10	0.25
2016	SASB 2015, affiliated with SAS 2015	CORE2017	B	Diana-Elena Gratie and Cristian Gratie. Composition colored Petri nets for the refinement of reaction-based models. Electronic Notes in Theoretical Computer Science, Vol. 326C, pp. 51 – 72, 2016 <a href="https://doi.org/10.1016/j.entcs.2016.09.018">https://doi.org/10.1016/j.entcs.2016.09.018</a>	2	4
2016	Computer and Information Science Series, Chapman & Hall/CRC <a href="https://dblp.org/pid/130/7515.html">https://dblp.org/pid/130/7515.html</a>		D	Diana-Elena Gratie, Bogdan Iancu, Sepinoud Azimi, Ion Petre, Quantitative model refinement in four different frameworks. In: From Action Systems to Distributed Systems: The Refinement Approach. Petre, Luigia, and Emil Sekerinski, eds. CRC Press, 201-214, 2016. <a href="https://www.taylorfrancis.com/chapters/edit/10.1201/b20053-27">https://www.taylorfrancis.com/chapters/edit/10.1201/b20053-27</a>	4	0.5
2024	iFM 2024	CORE2023	B	Ștefan Ciobăcă, Diana-Elena Gratie, Implementing, Specifying, and Verifying the QOI Format in Dafny: A Case Study. In: Kosmatov, N., Kovács, L. (eds) Integrated Formal Methods. IFM 2024. Lecture Notes in Computer Science, vol 15234. Springer, Cham. <a href="https://doi.org/10.1007/978-3-031-76554-4_3">https://doi.org/10.1007/978-3-031-76554-4_3</a>	2	4
					<b>Total</b>	<b>15.75</b>

### Perspectiva c)

An	Lucrare citată	Nr. autori	Lucrare care citează	Revistă/ Conferință/ Serie	Cat.	Punctaj
2023	Diana-Elena Gratie, Bogdan Iancu, Ion Petre, ODE analysis of biological systems. In: Formal Methods for Dynamical Systems. Marco Bernardo, Erik de Vink, Alessandra Di Pierro, Herbert Wiklicky (Eds.), Lecture Notes in Computer Science 7938, Springer, 29-62, 2013	3	Wang, Y., Liu, C., Qiao, X., Han, X., & Liu, Z. P. (2023). Pki: A bioinformatics method of quantifying the importance of nodes in gene regulatory network via a pseudo knockout index. <i>Biochimica et Biophysica Acta (BBA)-Gene Regulatory Mechanisms</i> , 1866(2), 194911.	Biochimica et Biophysica Acta-Gene Regulatory Mechanisms	B	4
2023			Hatime, N., Melliani, S., El Mfadel, A., & Elomari, M. (2023). Existence, uniqueness, and finite-time stability of solutions for $\Psi$ -Caputo fractional differential equations with time delay. <i>Computational Methods for Differential Equations</i> , 11(4), 785-802.	Computational Methods for Differential Equations	D	1
2023			Kianiharchegani, E. (2023). Data-Driven Exploration of Coarse-Grained Equations: Harnessing Machine Learning (Doctoral dissertation, The University of Western Ontario (Canada)).	Doctoral dissertation		1
2022			Gutowska, K., Kogut, D., Kardynska, M., Formanowicz, P., Smieja, J., & Puszynski, K. (2022). Petri nets and ODEs as complementary methods for comprehensive analysis on an example of the ATM-p53-NF- $\kappa$ B signaling pathways. <i>Scientific Reports</i> , 12(1), 1135.	Scientific Reports	A	8
2022			Hatime, N., Melliani, S., El Mfadel, A., Baleanu, D., & Elomari, M. (2022). On Newton's law of cooling with time delay and $\Psi$ -Caputo fractional derivatives.	researchsquare		1
2021			Zucker, J., Paneri, K., Mohammad-Taheri, S., Bhargava, S., Kolambkar, P., Bakker, C., ... & Vitek, O. (2021). Leveraging structured biological knowledge for counterfactual inference: a case study of viral pathogenesis. <i>IEEE Transactions on Big Data</i> , 7(1), 25-37.	IEEE Transactions on Big Data	B	4
2021			Clément, F., Robin, F., & Yvinec, R. (2021). Stochastic nonlinear model for somatic cell population dynamics during ovarian follicle activation. <i>Journal of Mathematical Biology</i> , 82, 1-52.	Journal of Mathematical Biology	B	4
2021			Ajmal, H. B. (2021). Dynamic Bayesian Modelling of Biological Networks (Doctoral dissertation, National University of Ireland Galway).	Doctoral dissertation		1
2021			Ackerman, E. E. (2021). Controls Engineering Approaches to Regulating Immunity During Respiratory Infection (Doctoral dissertation, University of Pittsburgh).	Doctoral dissertation		1
2021			Hillmann, A. (2021). Predicting the outcomes of HIV treatment interruptions using computational modelling (Doctoral dissertation, Dublin City University).	Doctoral dissertation		1
2021			Dutta, P. (2021). Computational modelling of the biological and social factors of type 2 diabetes (Doctoral dissertation, Nanyang Technological University).	Doctoral dissertation		1
2021			Sánchez Martín, J. A. (2021). Networks in Natural Computing and Precision Medicine (Doctoral dissertation, ETSI Sistemas Infor).	Doctoral dissertation		1
2020			González, J., Pinzón, A., Angarita-Rodríguez, A., Aristizabal, A. F., Barreto, G. E., & Martín-Jiménez, C. (2020). Advances in astrocyte computational models: from metabolic reconstructions to multi-omic	Frontiers in Neuroinformatics	A	8

			approaches. <i>Frontiers in Neuroinformatics</i> , 14, 35.			
2020			Martin, J. A. S., & Petre, I. (2020). Network Controllability Analysis of Three Multiple-myeloma Patient Genetic Mutation Datasets. <i>Fundam. Informaticae</i> , 175(1-4), 281-299.	Fundam. Informaticae	D	1
2020			Šmijáková, E. (2020). Control of Parametrised Boolean Networks (Doctoral dissertation, Masaryk University).	Doctoral dissertation		1
2019			Loskot, P., Atitey, K., & Mihaylova, L. (2019). Comprehensive review of models and methods for inferences in bio-chemical reaction networks. <i>Frontiers in genetics</i> , 10, 453395. <a href="https://doi.org/10.3389/fgene.2019.00549">https://doi.org/10.3389/fgene.2019.00549</a>	Frontiers in genetics	B	4
2019			Macdonald, B., & Husmeier, D. (2019). Model selection via marginal likelihood estimation by combining thermodynamic integration and gradient matching. <i>Statistics and Computing</i> , 29(5), 853-867.	Statistics and Computing	A	8
2019			Robin, F. (2019). Modeling and analysis of cell population dynamics: application to the early development of ovarian follicles (Doctoral dissertation, Sorbonne université).	Doctoral dissertation		1
2017			Sanwal, U., Petre, L., & Petre, I. (2017). Stepwise construction of a metabolic network in Event-B: The heat shock response. <i>Computers in Biology and Medicine</i> , 91, 1-12.	Computers in Biology and Medicine	A	8
2017			Barash, M., & Petre, I. (2017). A Foundational Framework for Step-by-step Model Construction. <i>Fundamenta Informaticae</i> , 154(1-4), 15-24.	Fundamenta Informaticae	D	1
2016			Santos-García, G., Talcott, C., Riesco, A., Santos-Buitrago, B., & De Las Rivas, J. (2016, June). Role of nerve growth factor signaling in cancer cell proliferation and survival using a reachability analysis approach. In <i>International Conference on Practical Applications of Computational Biology &amp; Bioinformatics</i> (pp. 173-181). Cham: Springer International Publishing.	International Conference on Practical Applications of Computational Biology & Bioinformatics		1
2016			Panchal, C., Azimi, S., & Petre, I. (2016). Generating the logicome of a biological network. In <i>Algorithms for Computational Biology: Third International Conference, AICoB 2016, Trujillo, Spain, June 21-22, 2016, Proceedings 3</i> (pp. 38-49). Springer International Publishing.	AICoB	D	1
2016			Dreossi, T. (2016). Reachability Computation and Parameter Synthesis for Polynomial Dynamical Systems (Doctoral dissertation, Université Grenoble Alpes; Università degli studi (Venise, Italie)).	Doctoral dissertation		1
2015			Dang, T., Dreossi, T., Piazza, C. (2015). Parameter Synthesis Through Temporal Logic Specifications. In: Bjørner, N., de Boer, F. (eds) <i>FM 2015: Formal Methods</i> . <i>FM 2015. Lecture Notes in Computer Science</i> (), vol 9109. Springer, Cham. <a href="https://doi.org/10.1007/978-3-319-19249-9_14">https://doi.org/10.1007/978-3-319-19249-9_14</a>	Formal Methods	A	8
2016	Bogdan Iancu, Diana-Elena Gratie, Sepinoud Azimi, Ion Petre, On the	4	Rogojin, V., & Petre, I. (2016). Large-scale executable biology using rapid integration of computational models. <i>Computer Science Journal of Moldova</i> , 70(1), 118-135.	Computer Science Journal of Moldova		0.5
2016	Implementation of Quantitative Model Refinement. In: Algorithms for Computational Biology.		Refsdal, A., Runde, R. K., & Stølen, K. (2016). Mandatory and Potential Choice: Comparing Event-B and STAIRS. In: <i>From Action Systems to Distributed Systems: The Refinement</i>	CRC Press		0.5

	Adrian-Horia Dediu, Carlos-Martin Vide, Bianca Truthe (Eds.). Lecture Notes in Computer Science Springer 8542, 95-106, 2014		Approach. Petre, Luigia, and Emil Sekerinski, eds. CRC Press, 201-214, 2016.			
2015			Azimi, S., Panchal, C., Czeizler, E., & Petre, I. (2015). Reaction systems models for the self-assembly of intermediate filaments. Ann. Univ. Buchar, 62(2), 9-24.			0.5
2022	Diana-Elena Gratie, Ion Petre, Hiding the combinatorial state space explosion of biomodels through colored Petri nets. Analele Universității din București. Editura Universității din București, LXI:23-41, 2014	2	Sanwal, U., Hoang, T. S., Petre, L., & Petre, I. (2022). Scalable reaction network modeling with automatic validation of consistency in Event-B. Scientific Reports, 12(1), 1287.	Scientific Reports	A	8
2017			Sanwal, U., Petre, L., & Petre, I. (2017). Stepwise construction of a metabolic network in Event-B: The heat shock response. Computers in Biology and Medicine, 91, 1-12.	Computers in Biology and Medicine	A	8
2017			Sanwal, U., & Siddique, U. (2017). Combining refinement and signal-temporal logic for biological systems. In Intelligent Computer Mathematics: 10th International Conference, CICM 2017, Edinburgh, UK, July 17-21, 2017, Proceedings 10 (pp. 333-339). Springer International Publishing.	Intelligent Computer Mathematics	D	1
2016			Rogojin, V., & Petre, I. (2016). Large-scale executable biology using rapid integration of computational models. Computer Science Journal of Moldova, 70(1), 118-135.	Computer Science Journal of Moldova		1
2017	Sepinoud Azimi, Eugen Czeizler, Cristian Gratie, Diana Gratie, Bogdan Iancu, Nebiat Ibssa, Ion Petre, Vladimir Rogojin, Tolou Shadbahr, Fatemeh Shokri, An Excursion Through Quantitative Model Refinement. In: Membrane Computing. Grzegorz Rozenberg, Arto Salomaa, José M. Sempere, Claudio Zandron (Eds.). Lecture Notes in Computer Science 9504, Springer, 25-47, 2015	10	Barash, M., & Petre, I. (2017). A Foundational Framework for Step-by-step Model Construction. Fundamenta Informaticae, 154(1-4), 15-24.	Fundamenta Informaticae	D	0.125
2020	Diana-Elena Gratie and Cristian Gratie. Composition colored Petri nets for the refinement of reaction-based models. Electronic Notes in Theoretical Computer Science, Vol. 326C, pp. 51 – 72, 2016	2	Xia, C., & Li, C. (2020). Property preservation of Petri synthesis net based representation for embedded systems. IEEE/CAA Journal of Automatica Sinica, 8(4), 905-915.	IEEE/CAA Journal of Automatica Sinica	A	8
2019			Liu, F., Heiner, M., & Gilbert, D. (2019). Coloured Petri nets for multilevel, multiscale and multidimensional modelling of biological systems. Briefings in bioinformatics, 20(3), 877-886.	Briefings in bioinformatics	A*	12
2018			Yang, J., Pu, H., Lian, J., Gu, J., & Fan, M. (2018). Modeling and analysis of protein synthesis and DNA mutation using colored Petri nets. IEEE Access, 6, 22386-22400.	IEEE Access	A	8
2018			Ma, Zhaoyang, Nailian Hu, Guoqing Li, Di Liu, and Tao Pan. "Ore value chain modeling and cost analysis based on Petri nets." Gospodarka Surowcami Mineralnymi-Mineral Resources Management (2018): 99-118.	Mineral Resources Management		1
2017			Jia, T., Li, C., & He, A. (2017, October). Modeling and Verification of Circuit with Stable-Event. In 2017 International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery (CyberC) (pp. 471-475). IEEE.	CyberC		1

2017			Barash, Mikhail, and Ion Petre. "A Foundational Framework for Step-by-step Model Construction." Fundamenta Informaticae 154, no. 1-4 (2017): 15-24.	Fundamenta Informaticae	D	1
2017	Diana-Elena Gratie, Bogdan Iancu, Sepinoud Azimi, Ion Petre, Quantitative model refinement in four different frameworks. In: From Action Systems to Distributed Systems: The Refinement Approach. Petre, Luigia, and Emil Sekerinski, eds. CRC Press, 201-214, 2016.	4	Sanwal, U., Petre, L., & Petre, I. (2017). Stepwise construction of a metabolic network in Event-B: The heat shock response. Computers in Biology and Medicine, 91, 1-12.	Computers in Biology and Medicine	A	4
2017			Sanwal, U., & Siddique, U. (2017). Combining refinement and signal-temporal logic for biological systems. In Intelligent Computer Mathematics: 10th International Conference, C1CM 2017, Edinburgh, UK, July 17-21, 2017, Proceedings 10 (pp. 333-339). Springer International Publishing.	C1CM	D	0.5
2017			Barash, M., & Petre, I. (2017). A Foundational Framework for Step-by-step Model Construction. Fundamenta Informaticae, 154(1-4), 15-24.	Fundamenta Informaticae	D	0.5
2016			Rogojin, V., & Petre, I. (2016). Large-scale executable biology using rapid integration of computational models. Computer Science Journal of Moldova, 70(1), 118-135.	Computer Science Journal of Moldova		0.5
					Total	127.125

Criteriu		Realizat	Grad îndeplinire
Perspectiva b)	Prag $A^*+A+B+C \geq 6$	15.25	254%
	Total $\geq 12$	15.75	131%
Perspectiva c)	Total $\geq 4$	127.125	3178%

La perspectiva c) nu au fost incluse autocitățile directe.