

Bialgebraic foundations for the operational semantics of string diagrams

Bonchi, Filippo; Piedeleu, Robin; **Sobocinski, Pawel Maria**; Zanasi, Fabio Information and computation 2021 / art. 104767, 22 p
<https://doi.org/10.1016/j.ic.2021.104767> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Calculational proofs in relational graphical linear algebra

Paixao, Joao; **Sobocinski, Pawel Maria** Formal Methods: Foundations and Applications : 23rd Brazilian Symposium, SBMF 2020, Ouro Preto, Brazil, November 25-27, 2020 : proceedings 2020 / p. 83-100 https://doi.org/10.1007/978-3-030-63882-5_6 [Conference proceedings at Scopus](#) [Article at Scopus](#)

A canonical algebra of open transition systems

Di Lavore, Elena; **Gianola, Alessandro**; **Roman Garcia, Mario**; Sabadini, Nicoletta; **Sobocinski, Pawel Maria** Formal aspects of component software : 17th International Conference, FACS 2021, Virtual Event, October 28-29, 2021 : proceedings 2021 / p. 63-81
https://doi.org/10.1007/978-3-030-90636-8_4 [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Conference Proceedings at WOS](#) [Article at WOS](#)

A compositional approach to signal flow graphs

Sobocinski, Pawel Maria 31st Nordic Workshop on Programming Theory, NWPT 2019, Tallinn, Estonia, 13-15 November 2019 : abstracts 2019 / p. 2 <https://doi.org/10.23658/taltech.nwpt/2019>

Compositional diagrammatic first-order logic

Haydon, Nathan Joseph; **Sobocinski, Pawel Maria** Diagrammatic representation and inference : 11th International Conference, Diagrams 2020, Tallinn, Estonia, August 24-28, 2020 : proceedings 2020 / p. 402-418 https://doi.org/10.1007/978-3-030-54249-8_32 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

Compositional modelling of network games

Di Lavore, Elena; Hedges, Jules; **Sobocinski, Pawel Maria** 29th EACSL Annual Conference on Computer Science Logic : CSL 2021, January 25-28, 2021, Ljubljana, Slovenia (Virtual Conference) 2021 / art. 30, p. 30:1-30:24 : ill
<https://doi.org/10.4230/LIPLCS.CSL.2021.30> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Contextual equivalence for signal flow graphs

Bonchi, Filippo; Piedeleu, Robin; **Sobocinski, Pawel Maria**; Zanasi, Fabio Foundations of Software Science and Computation Structures : 23rd International Conference, FOSSACS 2020, Held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2020, Dublin, Ireland, April 25-30, 2020 : proceedings 2020 / p. 77-96 https://doi.org/10.1007/978-3-030-45231-5_5 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

Diagrammatic polyhedral algebra

Bonchi, Filippo; Di Giorgio, Alessandro; **Sobocinski, Pawel Maria** 41st IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS 2021) 2021 / p. 40:1-40:18 <https://doi.org/10.4230/LIPLCS.FSTTCS.2021.40> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Doktorantuur IKTs – mitte ainult akadeemilise maailma austajatele

arileht.delfi.ee 2023 [Doktorantuur IKTs – mitte ainult akadeemilise maailma austajatele](#)

Functorial semantics for partial theories

Di Liberti, Ivan; **Loregian, Fosco**; **Nester, Chad Mitchell**; **Sobocinski, Pawel Maria** Proceedings of the ACM on Programming Languages 2021 / art. 57, 28 p. : ill <https://doi.org/10.1145/3434338> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High-level axioms for graphical linear algebra

Paixao, Joao; Rufino, Lucas; **Sobocinski, Pawel Maria** Science of computer programming 2022 / art. 102791 ; 26 p
<https://doi.org/10.1016/j.scico.2022.102791> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mis toimub tehisintellekti "kapoti all" ja miks me seda teadma peame?

Hämat, Karin Mente et Manu 2022 / lk. 30-33 : fot https://www.ester.ee/record=b1242496*est

Monoidal context theory = Monoidiliste kontekstide teooria

Roman Garcia, Mario 2023 <https://doi.org/10.23658/taltech.54/2023> <https://digikogu.taltech.ee/et/Item/034fb7d2-c41f-4d12-81a9-4dd792504995> https://www.ester.ee/record=b5645423*est

Monoidal width

Di Lavore, Elena; **Sobocinski, Pawel Maria** Logical methods in computer science 2023 / p. 15:1-15:46 : ill
[https://doi.org/10.46298/LMCS-19\(3:15\)2023](https://doi.org/10.46298/LMCS-19(3:15)2023)

Monoidal width : capturing rank width

Di Lavore, Elena; **Sobocinski, Pawel Maria** Proceedings Fifth International Conference on Applied Category Theory : Glasgow, Scotland, 18-22 July 2022 2023 / p. 268-283 : ill <https://doi.org/10.48550/arXiv.2205.08916>

Monoidal width = Monoidiline laius

Di Lavore, Elena 2023 <https://doi.org/10.23658/taltech.55/2023> <https://digikogu.taltech.ee/et/Item/e0ea1b50-07ff-44f4-a498-ef5c22a15502>
https://www.ester.ee/record=b5645383*est

On doctrines and Cartesian bicategories

Bonchi, Filippo; Santamaria, Alessio; Seeber, Jens; **Sobocinski, Pawel Maria** CALCO 2021 : 9th International Conference on Algebra and Coalgebra in Computer Science, Aug 31 - Sep 3, 2021, Salzburg, Austria : proceedings 2021 / p. 10:1–10:7
<https://doi.org/10.4230/LIPICs.CALCO.2021.10> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Partial and relational algebraic theories = Osalised ja relatsioonilised algebralised teooriad

Nester, Chad Mitchell 2024 https://www.ester.ee/record=b5650413*est <https://digikogu.taltech.ee/et/Item/696327ea-955a-45ad-bf93-bca34084131f> <https://doi.org/10.23658/taltech.4/2024>

Pawel Sobocinski: Teistmoodi matemaatikaga saame luua paremat tarkvara

Sobocinski, Pawel Maria arileht.delfi.ee Trialoog 2024 [Pawel Sobocinski: Teistmoodi matemaatikaga saame luua paremat tarkvara](#) [Pawel Sobocinski: Teistmoodi matemaatikaga saame luua paremat tarkvara](#)

Regular monoidal languages

Earnshaw, Matthew David; **Sobocinski, Pawel Maria** Leibniz International Proceedings in Informatics, LIPICs 2022 / p. 44:1–44:14
<https://doi.org/10.4230/LIPICs.MFCS.2022.44> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Rule algebras for adhesive categories

Behr, Nicolas; **Sobocinski, Pawel Maria** Logical methods in computer science 2020 / p. 2:1–2:38 [https://doi.org/10.23638/LMCS-16\(3:2\)2020](https://doi.org/10.23638/LMCS-16(3:2)2020) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Span(Graph) : a canonical feedback algebra of open transition systems

Di Lavore, Elena; Gianola, Alessandro; **Roman Garcia, Mario**; Sabadini, Nicoletta; **Sobocinski, Pawel Maria** Software and systems modeling 2022 / p. 495–520 : ill <https://doi.org/10.1007/s10270-023-01092-7> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

String diagram rewrite theory I : rewriting with Frobenius structure

Bonchi, Filippo; Gadducci, Fabio; Kissinger, Aleks; **Sobocinski, Pawel Maria**; Zanasi, Fabio Journal of the ACM 2022 / art. 14
<https://doi.org/10.1145/3502719> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

String diagram rewrite theory II : rewriting with symmetric monoidal structure

Bonchi, Filippo; Gadducci, Fabio; Kissinger, Aleks; **Sobocinski, Pawel Maria**; Zanasi, Fabio Mathematical structures in computer science 2022 / p. 511 - 541 <https://doi.org/10.1017/S0960129522000317> [Journal at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

String diagram rewrite theory III : confluence with and without Frobenius

Bonchi, Filippo; Gadducci, Fabio; Kissinger, Aleks; **Sobocinski, Pawel Maria**; Zanasi, Fabio Mathematical structures in computer science 2022 / p. 829–869 <https://doi.org/10.1017/S0960129522000123> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

String diagrammatic electrical circuit theory

Boisseau, Guillaume; **Sobocinski, Pawel Maria** arXiv 2022 / p. 178–191 : ill <https://doi.org/10.4204/EPTCS.372.13>
<https://cgi.cse.unsw.edu.au/~eptcs/paper.cgi?ACT2021.13> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

A survey of Compositional signal flow theory

Bonchi, Filippo; **Sobocinski, Pawel Maria**; Zanasi, Fabio Advancing Research in Information and Communication Technology : IFIP's Exciting First 60+ Years, Views from the Technical Committees and Working Groups 2021 / p. 29–56 https://doi.org/10.1007/978-3-030-81701-5_2 [Article collection metrics at Scopus](#) [Article at Scopus](#)

Toimiva digiühiskonna tagavad usaldusväärne tarkvara, turvaline riistvara ning energiasäästlikud ja nutikad asjad

Härmat, Karin Mente et Manu 2022 / lk. 32–33 https://www.ester.ee/record=b1242496*est

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Dashtimanesh, Abbas; Gerstlberger, Wolfgang Dieter; Hoffmann, Thomas; Männik, Aarne; Niidu, Allan; Pagliarini, Samuel Nascimento; **Sobocinski, Pawel Maria**; Treffner, Ivar Mente et Manu 2019 / lk. 26–32 : fot https://www.ester.ee/record=b1242496*est