# Michał R. Jabłonowski

CURRICULUM VITAE

## CONTACT DATA


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## EDUCATION

*Ph.D. Degree* University of Gdansk. Faculty of Mathematics, Physics and Informatics.
Thesis: "Invariants for Local Codimension-Two Surface Moves"

## POSITIONS HELD

- University of Gdansk, Institute of Mathematics, 01.10.2013 to present, *Assistant Professor*.
- University of Warsaw, Institute of Mathematics, 01.07.2015 to 30.06.2016, *Assistant Professor*.

## LIST OF PUBLICATIONS

- M. Jabłonowski, Tabulation of knots up to five triple-crossings and moves between oriented diagrams, *preprint*
- M. Jabłonowski, Minimal generating set of planar moves for surfaces embedded in the four-space, to appear in *J. Knot Theory Ramifications*
- M. Jabłonowski, Triple-crossing number, the genus of a knot or link and torus knots, *Topology and its Applications*, Vol. 285 (2020) 107389.
- M. Jabłonowski, Independence of Yoshikawa eighth move and a minimal generating set of band moves, *Fundamenta Mathematicae*, Vol. 251 (2020) 183–193.
- M. Jabłonowski and Ł. Trojanowski, Triple-crossing projections, moves on knots and links, and their minimal diagrams, *J. Knot Theory Ramifications*, Vol. 29 (2020) 2050015.
- M. Jabłonowski, Minimal hard surface-unlink and classical unlink diagrams, *J. Knot Theory Ramifications*, Vol. 28 (2019) 1940002.
- M. Jabłonowski, Presentations and representations of surface singular braid monoids, *Journal of the Korean Mathematical Society*, Vol. 54 (2017) 749-762.

- M. Jabłonowski, On a banded link presentation of knotted surfaces, *J. Knot Theory Ramifications*, Vol. 25 (2016) 1640004.
- M. Jabłonowski, On a surface singular braid monoid, *Topology and its Applications*, Vol. 160 (2013).
- M. Jabłonowski, Knotted surfaces and equivalencies of their diagrams without triple points, *J. Knot Theory Ramifications*, Vol. 21 (2012) 1250019.

## TEACHING EXPERIENCE

- *Data Visualization*, for MMAD
- *Mathematical Analysis I and II*, for: Computer Science, Medical Physics, Biotechnology
- *Theory of Knots and Links*, seminar for Mathematics
- *Mathematics*, for: Chemistry, Management, Logistics, Spatial Development, Environmental Protection
- *Linear Algebra*, for: Mathematics, Computer Science
- *Geometry with Topology*, for Economical Mathematics
- *Introduction to Programming*, for Computer Science
- *Information Technology*, for Philology

## UNIVERSITY SERVICE AND SKILLS

- Chairman of the Faculty Recruitment Committee
- co-organizer of the conference "Knots in Gdansk" I, II and III
- Year tutor for students of mathematics
- Faculty Council member Faculty of Mathematics, Physics and Informatics of UG
- Stipend Council member for Ph.D. students of UG
- Preparation, in the LaTeXsystem, of the monograph *Knot theory and distributive sets associated to it*, published by UG (2012). Extended second edition published (2016).
- Languages skills: Polish, English
- Certified qualifications to teach mathematics in English

## HONORS AND AWARDS

- Postdoctoral research fellowship at the Warsaw Center of Mathematics and Computer Science
- Top scholarships of University of Gdansk in every year of Ph.D. studies
- Honorable mention at International Mathematics Competition for University Students
- 1st Award from the Rector of University of Gdansk, while at master studies
- First place at IX small Polish Mathematical Olympiad
- First place at XX Voivodeship Mathematical Competition
- Laureate of Intervoivodeship Mathematical Competition
- Honorable mention at the final of the LI Polish Mathematical Olympiad
- Finalist of the L Polish Mathematical Olympiad

## INTERNATIONAL CONFERENCES ATTENDED

- "Knots in Gdansk III", 17-19.06.2019, Gdansk in Poland, talk: *"Yoshikawa eighth move and a minimal set of band moves"*.
- "Knots in Gdansk II", 14-15.06.2018, Gdansk in Poland, talk: *"Hard marked graph diagrams for knotted surfaces in the four space"*.
- "Knots in Gdansk I", 10-11.07.2017, Gdansk in Poland, talk: *"Properties of marked graph diagrams presenting surface-links"*.
- "Knots in Washington XLIII", 09-11.12.2016, Washington in USA, talk: *"On an algebraic description of marked braid diagrams for surface-links"*.
- "Glances at Manifolds II", 08-13.08.2016, Krakow in Poland.
- "Knots in Hellas 2016", 17-23.07.2016, Olympia in Greece, poster presentation: *"Braid and flat banded link forms of marked graph diagrams for surface-links"*.
- The 18th International Workshop for Young Mathematicians "Algebraic and Differential Topology", 13-18.09.2015, Krakow, talk: *"Depicting a codimension-two smooth embeddings of surfaces"*.
- "Geometric Singularity Theory", 06-11.09.2015, Warsaw.
- "Glances at Manifolds - low and high dimensional", 17-20.07.2015, Krakow in Poland, talk: *"A view of knotted surfaces by a number and a position of its critical points"*.
- "30th Summer Conference on Topology and its Applications", 22-26.06.2015, Galway in Ireland.

- "Conference on Knot Theory and Its Applications to Physics and Quantum Computing", 06-09.01.2015, Richardson, Texas in USA, talk: *"A singular braid monoid associated to knotted surfaces"*.
- "DMV-PTM Mathematical Meeting", 17-20.09.2014, Poznan in Poland, talk: *"A singular braid view to knotted surfaces"*.
- "Geometry and topology of smooth 4-manifolds", 03-07.06.2013, Bonn in Germany.
- "Knots in Washington XXXV", 07-09.12.2012, Washington in USA, talk: *"On a monoid associated to knotted surfaces in special form"*.
- "6th European Congress of Mathematics", 02-07.07.2012, Krakow in Poland, talk: *"Linked surfaces and different singularity set of their projections"*.
- "1080 AMS Eastern Sectional Meeting", 17-18.03.2012, Washington in USA.
- "Knots in Washington XXXIV", 14-16.03.2012, Washington in USA.
- "Swiss Knots 2011", 23-27.05.2011, Thun in Switzerland.
- "Knots in Poland III", 18.07-04.08.2010, Warsaw-Bedlewo in Poland, talk: *"Knotted surfaces and equivalencies of their diagrams without triple points"*.

## GRANTS AWARDED

- PI: Research grant "Granty na granty" (2020) "Invariants and semi-invariants for knots surface from Yoshikawa moves"
- PI: Research grant BW 538-5100-B297-16 (2016) "Set of independent generators for moves of equivalent marked diagrams"
- PI: Research grant BW 538-5100-B854-15 (2015) "Relationship between words in a monoid $SSB$ and types of linked surfaces"
- PI: Research grant BW 538-5100-B155-13 (2013) "Monoid of singular surface braids"
- PI: Research grant BW 538-5100-0968-12 (2012) "Algebraic distinguish of knotted surfaces"
- PI: Research grant BW 538-5100-0628-1 (2011) "Types of surface knots"
- Grant researcher BW 5107-5-0343-0 (2010) "Classical knots and higher dimensional knots"

## RESEARCH LECTURES AND PRESENTATIONS (OUTSIDE ALMA MATER)

- 16.04.2021: "Triple-crossing diagrams of knots", Greater Washington Topology Seminar
- 16.01.2015: "On a monoid associated to knotted surfaces", University of Texas at Dallas
- 04.12.2012: "Marked diagrams of surfaces in the four-dimensional space", George Washington University

## EXPOSITORY TALKS

- 11.03.2017, 03.12.2016: Przygotowanie ćwiczeń, laboratoriów oraz wygłoszenie wykładu pt. "Powierzchnie" w programie Zdolni z Pomorza (in Polish)
- 13/14.03.2015: "W świecie płaszczaków", na Pomorską Noc Matematyki UG (in Polish)
- 21.05.2014: "Rozcinanie z sklejanie rozmaitości", dla Koła Naukowego Matematyki UG (in Polish)

## REVIEWS COMPLETED

- for *Kyungpook Mathematical Journal*: 1 (in 2019)
- for *J. Knot Theory Ramifications*: 1 (in 2018)
- for *Turkish Journal of Mathematics*: 1 (in 2018)
- for *Mathematical Reviews*: 18 (in 2014-2016), 12 (in 2017-2018), 7 (in 2019-2020)
- for *Zentralblatt MATH*: 4 (in 2017-2018), 9 (in 2019-2020)

## MEMBERSHIPS

- Polish Mathematical Society (PTM)
- European Mathematical Society (EMS)

## SUPERVISING AND MENTORING STUDENTS

- the number of students with completed a Bachelor's degree: 14

last modified: 24 September, 2021