

CURRICULUM VITAE

MICHAŁ KAPUSTKA

PERSONAL DATA

EMPLOYMENT HISTORY

2007 - 2010 **Assistant** Uniwersytet Jagielloński
2009 - 2010 **Postdoc** Universitetet i Oslo
2010 - 2019 **Assistant Professor** Uniwersytet Jagielloński
2010 - 2014 **Assistant, Postdoc** Universität Zürich
2015 - 2021 **Førstamanuensis** Universitetet i Stavanger
2017 - 2018 **Assistant Professor** Instytut Matematyczny Polskiej Akademii Nauk
2018 - ... **Associate Professor** Instytut Matematyczny Polskiej Akademii Nauk

DEGREES

02.2018 **Habilitation** Jagiellonian University
Thesis: Calabi–Yau threefolds and Mukai varieties
05.2014 **Privat docent** in algebraic geometry, University of Zürich
Habilitation thesis: *Mukai varieties and Calabi-Yau threefolds*
09.2007 **Doctoral degree** (dr. scient.) in mathematics, Jagiellonian university in Kraków
PhD thesis: *Arithmetic and geometric properties of some Calabi-Yau threefolds*
Advisor: Sławomir Cynk
06.2003 **Master degree** (cand. scient.) in mathematics, Jagiellonian University
Master thesis: *"Systemy liniowe na powierzchniach K3" (Linear systems on K3 surfaces)*
Advisor: Tomasz Szemberg

AWARDS AND SCHOLARSHIPS

2003 F. Leja Award for best student at the Jagiellonian University
2006 IMPAN scholarship
2008 M. J. Łysek Award for best young mathematician at the Jagiellonian University
2010 PTM award for young mathematicians
2015 Scholarship of the Polish Ministry of Science and Higher Education for outstanding young scientists

GRANTS

2009 - 2010 Holder of the grant "The geometry of Calabi-Yau manifolds", founded by the countries of the European Economic Area through the program EEA Grants

- 2009 - 2011 Investigator in the research grant "Osobliwe rozmaitosci Calabi-Yau, ich deformacje oraz wlasnosci arytmetyczne" (Singular Calabi-Yau threefolds, their deformations and arithmetic properties), founded by the Polish Ministry of Science and Higher Education
- 2010 - 2013 Main investigator in the research grant "Konstrukcje rozmaitosci za pomoca wiasek" (Constructing varieties using vector bundles), founded by the Polish Ministry of Science and Higher Education
- 2011 Principal investigator in the grant "Deformations of algebraic varieties", founded by the Polish Ministry of Science and Higher Education through the program Iuventus plus
- 2010 - 2013 Postdoc in the grant "Gauge theory and complex geometry" founded by the Swiss National Science Foundation
- 2013 - 2014 Holder of the grant "Mukai varieties, Calabi-Yau threefolds, and Hyperkähler fourfolds" founded by the Forschungskredit of the University of Zürich
- 2014 - 2019 Project manager in the grant "Varieties with trivial first Chern class" founded by the Polish National Science Center under the scheme SONATA BIS.
- 2019 - 2023 Holder of the grant "Calabi-Yau type manifolds" founded by the Polish National Science Center under the scheme OPUS..
- 2022 - 2026 Holder of the grant "Calabi-Yau manifolds and Gorenstein rings" for a PhD position founded by the Polish National Science Center under the scheme Preludium Bis.

TALKS

Conference and research seminar talks:

- 2001 – 2021 The IMPANGA seminar in Warsaw
 Talks: "Powierzchnie log del Pezzo indeksu 2" (Log del Pezzo surfaces of index 2)
 "Arithmetic and geometric properties of some Calabi-Yau threefolds"
 "A cascade of determinantal Calabi-Yau threefolds"
 "Geometric transitions between Calabi-Yau threefolds"
 "Mukai varieties and dual K3 surfaces"
 "Calabi-Yau threefolds in \mathbb{P}^6 "
 "Mirror symmetry for determinantal Calabi-Yau threefolds"
 " $K3^{[2]}$ type IHS fourfolds with automorphisms "
 "Equivalent Calabi-Yau manifolds"
 "Periods of EPW cubes"
- 2002 - 2018 IMPANGA schools of the Polish Academy of Sciences
 Talk: "Extensions Biextensions and Duality", at the school "Symplectic geometry"
 Talk: "The two point Hilbert schemes of K3 surfaces of genus 10", at the school "Hyperkähler manifolds"
- 2002 Conference "Linear systems" in Bedlewo
 Talk: "Seshadri constants on del Pezzo surfaces"
- 2004 - 2005 COW and Calf seminars in England
 Talks at Calf: "Linear systems on K3 surfaces" and "Singular del Pezzo surfaces"
- 2005 Seminar of the University of Warsaw
 Talk: "Geometria osobliwych powierzchni del Pezzo" (The geometry of singular del Pezzo surfaces)
- 2005 Conference Recent Advances in Algebraic Geometry in Kraków
 Talk: "Singular del Pezzo surfaces"
- 2005 Colloquium talk for postgraduate students at the Polish Academy of Sciences:

- 2008 Talk: "Powierzchnie del Pezzo" (Del Pezzo surfaces)
Oberseminar in Algebraic Geometry at the University of Duisburg-Essen
Talk: "Fiber products of elliptic surfaces with section and associated Kummer fibrations"
- 2008 Seminar in Arithmetic Geometry at the University of Poznań
Talk: "Modularity of fiber products of elliptic surfaces"
- 2009 Seminar in Algebraic Geometry at the University of Freiburg
Talk: "Del Pezzo surfaces, unprojections and Calabi-Yau threefolds"
- 2010 Forum of Polish Mathematicians in Olsztyn
Plenary talk: "Calabi-Yau threefolds"
- 2010 Oberseminar in Algebraic Geometry at the University of Zürich
Talk: "Mukai varieties and dual K3 surfaces"
- 2011 Workshop "Calabi-Yau manifolds and mirror symmetry" in Milan
Talk: "Unprojections and Calabi-Yau threefolds"
- 2013 Seminar in Algebraic Geometry at the Jagiellonian University in Kraków
Talk: "Calabi-Yau threefolds in \mathbb{P}^6 "
- 2014 Workshop "Workshop on Calabi-Yau Manifolds, Mirror Symmetry and Related Topics" at the University of Tokyo:
Talk: Calabi-Yau threefolds in \mathbb{P}^6
- 2014 PTM DMV meeting, Algebraic geometry session, in Poznań
Talk: Calabi-Yau threefolds in \mathbb{P}^6
- 2014 Seminar in algebraic geometry at the university of Hannover
Talk: EPW cubes
- 2014-2015 Oberseminar in Algebraic Geometry at the University of Zürich
Talks: EPW cubes, CalabiYau threefolds in \mathbb{P}^7
- 2015 Conference "Hyper-Kaehler Manifolds and Related Structures in Algebraic and Differential Geometry", Levico Terme
Talk: Incident planes and hyperkähler fourfolds
- 2016 Conference Mediterranean Complex Projective Geometry, Carry le Rouet
Talks: CalabiYau threefolds in small codimension
- 2016 Seminar of the minipages semester in Warsaw
Talks: Hyperkähler manifolds
- 2017 Seminar in algebraic geometry at the University La Sapienza in Rome
Referat: EPW cubes and their degenerations
- 2017 Workshop accompanying the Jankowski Lecture in Gdansk
Talks: Hyperkähler manifolds via Lagrangian degeneracy loci
- 2017 Konferencja "Japanese-European Symposium on Symplectic Varieties and Moduli Spaces", Levico Terme
Talk: The last involutions
- 2018 Seminar in algebraic geometry at the University of Milan
Talk: Hodge equivalent Calabi-Yau threefolds with GLSM interpretation.
- 2018 Seminar in algebraic geometry at the University of Bologna
Talk: Equivalent Calabi–Yau type manifolds
- 2018 Norwegian National Mathematicians meeting in Bergen
Talk: "Equivalence of Calabi–Yau manifolds"
- 2018 Polish-Italian meeting of mathematicians UMI-SIMAI-PTM, Wrocław
Talk: "Equivalence of Calabi–Yau manifolds"
- 2019 Mathematics and String Theory seminar at Kavli IPMU, Tokyo
Talk: "Equivalent Calabi–Yau manifolds via GLSM"
- 2019 Algebraic Geometry Days at the University of Stavanger
Talk: "Birational quadric fibrations from symmetric locally free resolutions"
- 2019 Jubilee Congress for the 100th anniversary of the Polish Mathematical Society

- 2020 Talk: "Birational quadric fibrations from symmetric locally free resolutions"
Algebra seminar at the University of Oslo
- 2021 Talk: "Equivalent Calabi–Yau manifolds via GLSM"
Online mirror symmetry seminar at SISSA Trieste
- 2021 Talk: "Double mirrors of Calabi-Yau manifolds"
Online algebraic geometry seminar at the University of Nottingham
- 2022 Talk: "Nikulin orbifolds"
ANR Fano HK thematic Workshop in Toulouse
- 2022 Talk: "Comparing double EPW sextics with double EPW cubes"

Short research visits:

- 2008 University of Duisburg-Essen
- 2012 Institut Fourier, Grenoble
- 2015 Leibniz University in Hannover
- 2015 University of Zürich
- 2016 University of Zürich
- 2015-2020 University of Oslo
- 2017 University “Sapienza” in Rome
- 2018 Università di Milano
- 2018 Università di Bologna
- 2019 Gakushuin University Tokyo

SUPERVISION

Students:

- 2008 - 2009 Supervision of master student Paweł Wiklik at the Jagiellonian University
- 2016 - 2020 PhD advisor of Marco Rampazzo at the University of Stavanger,
PhD thesis: "Equivalences between Calabi–Yau manifolds and roofs of projective bundles".
- 2018 Advisor of master thesis of Anne Synnøve Larsen at the University of Stavanger,
Master thesis: "The Poncelet Theorem".
- 2021 - 2025 PhD advisor of Andre Mialebama. Subject: Pfaffian Calabi-Yau threefolds
- 2022 - 2026 PhD advisor of Prajwal Samal. Subject: Calabi-Yau manifolds and Gorenstein rings

ASSESSMENT WORK

- Referee for Journal of Algebraic Geometry, Journal of Geometry and Physics, Compositio Mathematica, Advances in Mathematics, Mathematische Nachrichten, Mathematische Zeitschrift, Communications in Contemporary Mathematics, Mathematische Annalen, International Mathematical Research Notices, Symmetry Integrability and Geometry: Methods and Applications, Algebras and Representation Theory, Linear and Multilinear Algebra, Journal of Algebra, Journal of Gokova-Geometry and Topology, Bulletin of the London Mathematical Society, Algebra and Number Theory, Annales Polonici Mathematici, Communications in Mathematical Physics, Journal of Symbolic Computations
- Referee of grant applications at the Polish National Science Center
- Member of assessment panel at the Polish National Science Center 2015-2016, 2017-2018 .

ADMINISTRATION

- Organizer of the workshop: “Projective geometry and syzygies”, Warsaw 2015.
- Organizer of the school: “Varieties of Calabi-Yau type” Warsaw 2016.

- Organizer of the workshop: “Periods and Ricci flat manifolds”, Warsaw 2017.
- Organizer of the workshop: “Motives of Calabi–Yau type manifolds”, Kraków 2018.
- Organizer of the conference: “IMPANGA 20”, Bedlewo 2021.
- Organizer of the seminar of the Krakow brach of IMPAN: 2018-2022.
- Organizer of the IMPANGA seminar: 2017-2022.
- Organizer of the Satellite conference of the ICM: “Recent advances in classical algebraic geometry”, Kraków 2022.
- Organizer of the conference: The Fourth Killing Weierstrass Colloquim, Gdańsk 2022.