MARCO RAMPAZZO

CURRICULUM VITAE, 21 OCTOBER 2021.

PERSONAL INFORMATION

Address Department of Mathematics, University of Bologna

Piazza di Porta San Donato 5

40126 Bologna (BO)

Italy

Home address Via Kennedy 39

21040 Sumirago (VA)

Italy

Telephone number +39 3667049854

Email marco.rampazzo3@unibo.it

ACADEMIC ACTIVITY

Current position 2021 – now

Assegno di Ricerca, University of Bologna

Previous position 2016 – 2020

Spring 2019

PhD student in mathematics, University of Stavanger

Supervisor: Michał Kapustka

Thesis: "Equivalences of Calabi-Yau mainfolds and roofs of projective bundles"

Guest positions / Thematic programs

Guest of the Paul Sabatier University, Toulouse

Funding: Norwegian Research Council mobility grant

Host: Laurent Manivel

EDUCATION

Master's degree in Physics 2016

University of Milan

Bachelor's degree in Physics 2013

University of Milan

RESEARCH INTERESTS

Algebraic varieties: Calabi–Yau varieties, homogeneous varieties and homogeneous vector bundles, Fano varieties with multiple projective bundle structures

Derived categories of coherent sheaves: semiorthogonal decompositions, mutations of exceptional collections, derived equivalence, Fourier–Mukai transform

Birational geometry: roofs of projective bundles, K-equivalence, DK-conjecture

Gauged linear sigma models: multiple geometric phases, phase transitions, variation of GIT

TEACHING

Linear Algebra, exercise classes	fall 2021
Discrete Mathematics, exercise classes	fall 2020
Linear Algebra, exercise classes	fall 2020
Probability and Statistics, exercise classes	spring 2020
Linear algebra, teaching and exercise classes	fall 2019
Linear algebra, exercise classes	fall 2018
Linear algebra, exercise classes	fall 2017

CONFERENCE TALKS

Workshop "Algebraic Geometry days". Mukai roofs and K3 surfaces	Stavanger, 25–26 November 2019
Conference "Nasjonalt Algebramøte 2019". Derived equivalence of Mukai roofs: the case of K3 surfaces of degree 12	Oslo, 7–8 November 2019
Seminar of Algebra of the Jagellonian University. Computing Hodge numbers of Calabi–Yau varieties in Grassmannians	Kraków, 11 April 2019
Conference "Nasjonalt Matematikermøte 2018". A GLSM description for a pair of non birational Calabi–Yau threefolds	Bergen, 12 September 2018
Workshop "Motives of Calabi–Yau manifolds". A gauged linear sigma model description for a pair of non birational Calabi–Yau threefolds	Kraków, 19–21 May 2018

SEMINARS ORGANIZED

Seminar: *Bridgeland stability conditions*Organizer together with Simone Billi, Francesco Denisi,

Bologna – Chemnitz – Nancy, fall 2021.

Franco Giovenzana, Annalisa Grossi and

Mihai-Cosmin Pavel

Seminar: The mathematics of gauged linear sigma models

Organizer and speaker

Toulouse, spring 2019.

PUBLICATIONS AND PREPRINTS

- 1. PhD Thesis: Marco Rampazzo. Equivalences between Calabi—Yau manifolds and roofs of projective bundles. (2021). https://doi.org/10.31265/usps.78

 Available online at https://ebooks.uis.no/index.php/USPS/catalog/book/78
- 2. *Publication:* Michał Kapustka, Marco Rampazzo. *Mukai duality and roofs of projective bundles.* (2021). Accepted by the Bulletin of the London Mathematical Society.
- 3. *Publication:* Michał Kapustka, Marco Rampazzo. *Torelli problem for Calabi-Yau threefolds with GLSM description*. Communications in Number Theory and Physics, Volume 13, No. 4 (2019).
- 4. *Preprint*: Enrico Fatighenti, Michał Kapustka, Giovanni Mongardi, Marco Rampazzo. *The generalized roof* F(1,2,n): *Hodge structures and derived categories*. (2021). Available on arXiv.
- 5. *Preprint*: Marco Rampazzo. *Calabi*–Yau fibrations, simple *K*-equivalence and mutations. (2020). e-print: arXiv:2006.06330