

# MARCO RAMPAZZO

## PERSONAL INFORMATION

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<b>Address</b>	<b>Department of Mathematics, University of Bologna</b> Piazza di Porta San Donato 5 40126 Bologna (BO) Italy
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## ACADEMIC ACTIVITY

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<b>Current position</b> Postdoc, University of Bologna	2021 – now
<b>Previous position</b> PhD student in mathematics, University of Stavanger Supervisor: Michał Kapustka Thesis: “Equivalences of Calabi–Yau manifolds and roofs of projective bundles”	2016 – 2020
<b>Guest positions / Thematic programs</b> Guest of the Paul Sabatier University, Toulouse Funding: Norwegian Research Council mobility grant Host: Laurent Manivel	Spring 2019

## EDUCATION

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<b>Master’s degree in Physics</b> University of Milan	2016
<b>Bachelor’s degree in Physics</b> University of Milan	2013

## RESEARCH INTERESTS

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*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

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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

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

## SEMINARS ORGANIZED

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Seminar: <i>Bridgeland stability conditions</i> Organizer together with Simone Billi, Francesco Denisi, Franco Giovenzana, Annalisa Grossi and Mihai–Cosmin Pavel. Homepage: <a href="https://marcorampazzo.github.io/bridgeland">https://marcorampazzo.github.io/bridgeland</a>	Bologna – Chemnitz – Nancy, fall 2021.
Seminar: <i>The mathematics of gauged linear sigma models</i> Organizer and speaker	Toulouse, spring 2019.

## PUBLICATIONS AND PREPRINTS

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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 at <https://arxiv.org/abs/2110.10475>
5. *Preprint*: Marco Rampazzo. *Calabi–Yau fibrations, simple  $K$ -equivalence and mutations*. (2020). Available at <https://arxiv.org/abs/2006.06330>