CURRICULUM VITAE (November 2019)
Jacopo Stoppa

General information:
Born on 4 June 1981. Nationality: Italian.

Current academic position:
-Professore Ordinario di Geometria, SISSA Trieste, since April 2016.
-Coordinator of the SISSA research group and PhD course in Geometry and Mathematical Physics, since October 2018.
-Member of the Institute for Geometry and Physics - IGAP Trieste (joint SISSA-ICTP initiative), since 2018.

External funding track record:
-Regional Government grant ``FSE–Progr.2014/2020, Asse 3'', total expected funding approx. 50.000 euro for the period 2020-2022.
-Principal Investigator for the European Research Council - ERC Starting Grant StG 307119 - StabAGDG ``Stability and wall-crossing in algebraic and differential geometry'', 2012-2017. Total funding: 511.936 euro.
-Membro aggregato - Adjunct Member, FIRB Futuro in Ricerca Project RBFR12DZRV ``Spazi di moduli e applicazioni'' (P.I.: Gilberto Bini, Milano Statale). Total duration: 60 months.

Past positions:
-Professore Associato di Geometria, Dipartimento di Matematica, Università di Pavia (2014-2016).
-Ricercatore in Geometria, Dipartimento di Matematica, Università di Pavia (2010-2014).
-Junior Research Fellow, Trinity College, Cambridge: October 2008 - June 2014.
-Group Leader, Research Group ``BPS States'', Junior Hausdorff Research Trimester ``Mathematical Physics'', Hausdorff Institute for Mathematics, Bonn (September - December 2012).
-Member of the Department of Pure Mathematics and Mathematical Statistics (DPMMS), University of Cambridge, July 2009 - December 2010.
-Visiting Scientist, Max Planck Institute for Mathematics, Bonn, November 2008 - July 2009.

Research interests:
Complex algebraic and differential geometry: canonical metrics in Kähler geometry and algebro-geometric stability (MSC 2010: 53C25, 53C26); Donaldson-Thomas invariants and their wall-crossing: connections with differential geometry, integrable systems and mathematical physics (53C55, 51P05); connections with representation theory of quivers and plane tropical curves (14N35, 14T05, 16G20).

Publications and preprints:
-E. Schlitzer and J. Stoppa, Deformed Hermitian Yang-Mills connections, extended gauge group and scalar curvature , arXiv:1911.10852 [math.DG].
-C. Scarpa and J. Stoppa, Solutions to Donaldson's hyperkaehler reduction on a curve, arXiv:1905.09571 [math.DG].
-A. Barbieri, T. Bridgeland and J. Stoppa, A quantized Riemann-Hilbert problem in Donaldson-Thomas theory , arXiv:1905.00748 [math.AG].
-J. Stoppa, A note on BPS structures and Gopakumar-Vafa invariants, arXiv:1812.07454 [math.AG]. Communications in Number Theory and Physics, Vol. 13, No. 3, 627-645 (2019).
-C. Scarpa and J. Stoppa, Scalar curvature and an infinite dimensional hyperkaehler reduction, arXiv:1811.01694 [math.DG].
-J. Stoppa, Stable pairs, flat connections and Gopakumar-Vafa invariants, arXiv:1712.01221 [math.AG].

-J. Scalise and J. Stoppa, Variations of BPS structure and a large rank limit , Journal of the Institute of Mathematics of Jussieu, 1-33. doi:10.1017/S1474748019000136.

-A. Barbieri, J. Stoppa and T. Sutherland, A construction of Frobenius manifolds from stability conditions. Proc. London Math. Soc. 118, no. 6, 1328-1366 (2019).

-G. Codogni and J. Stoppa, Torus equivariant K-stability, in "Moduli of K-stable varieties", Springer INdAM Series vol. 31 (2019), Springer International Publishing, ISBN 978-3-030-13157-9.

-A. Barbieri and J. Stoppa, Frobenius type and CV-structures for Donaldson-Thomas theory and a convergence property, Comm. Anal. Geom., Vol. 27, No. 2, 287-327 (2019), arXiv:1512.01176 [math.AG].

-Filippini, S. A., Garcia-Fernandez, M., Stoppa, J., Stability data, irregular connections and tropical curves, Selecta Mathematica 23, no. 2, 1355-1418 (2017).

-Filippini, S. A., Stoppa, J., TBA type equations and tropical curves, International Journal of Mathematics 27, no. 7, 1640005 (2016).

-Filippini, S. A., Stoppa, J., Block-Göttsche invariants from wall-crossing, Compositio Mathematica 151, no. 8, 1543-1567 (2015).

-Stoppa, J., Joyce-Song wall-crossing as an asymptotic expansion, Kyoto Journal of Mathematics 54, no.1, 103-156 (2014).

-Reineke, M., Stoppa, J., Weist, T., MPS formula for quiver moduli and refined GW/Kronecker correspondence, Geometry & Topology 16, no. 4, 2097-2134 (2012).

-Stoppa, J., D0-D6 states counting and GW invariants, Letters in Mathematical Physics 102, no. 2, 149-180 (2012).

- Stoppa, J., Universal covers and the GW/Kronecker correspondence. Communications in Number Theory and Physics 5, no. 2, 1-43 (2011).

-Stoppa, J., Szekelyhidi, G., Relative K-stability of extremal metrics, Journal of the European Mathematical Society 13, no. 4, 899-909 (2011).

-Stoppa, J., Thomas, R. P., Hilbert schemes and stable pairs: GIT and derived category wall crossings, Bulletin de la Société Mathématique de France 139, no. 3, 297-339 (2011).

-Stoppa, J., Tenni, E., A simple limit for slope instability, International Mathematics Research Notices 2010:1816-1830 (2010).

-Stoppa, J., Unstable blowups, Journal of Algebraic Geometry 19, 1-17 (2010).

-Stoppa, J., Twisted constant scalar curvature Kähler metrics and Kähler slope stability, Journal of Differential Geometry 83, no. 3, 663-691 (2009).

-Stoppa, J., K-stability of constant scalar curvature Kähler manifolds, Advances in Mathematics 221, no. 4, 1397-1408 (2009).

Supervision of Postdocs:

J. Scalise, SISSA 2017-18; R. Svaldi, SISSA 2016-17, currently at DPMMS Cambridge; G. Codogni, Pavia 2015, currently at EPFL Lausanne; S. A. Filippini, Pavia 2013, currently a postdoc at Imperial College, London; A. Mandini, Pavia 2013-15, currently Associate Professor at PUC, Rio; T. Sutherland, Pavia 2014-16, currently at Mainz.

Supervision of PhD Students:

Anna Barbieri, Pavia 2013-16, currently a postdoc at Sheffield; Veronica Fantini, Carlo Scarpa, SISSA, third year students; Enrico Schitzler, SISSA, second year student.

Short-term positions (selected):

Hausdorff Center for Mathematics, Bonn, July 2011, invited by D. Huybrechts; Member of the Research Program ``Moduli Spaces'', Isaac Newton Institute for Mathematical Sciences, January-June 2011; RIMS Kyoto, March 2010, invited by H. Nakajima; BICMR, Beijing, October 2008, invited by G. Tian; Imperial College, London, May-June 2006, October 2006-March 2008 and June-October 2008, working with S. K. Donaldson and R. P. Thomas.

Organisation of seminars, conferences, thematic periods (selected):
-Kaehler Geometry Seminars at IGAP (with Claudio Arezzo), academic years 2018-19, 2019-20.
-Moduli of K-stable varieties, Rome, 10-14 July 2017 (ERC-INdAM).
-School and Workshop on Algebraic Geometry and Physics 2017, Trieste 19-23 June 2017 (ERC-SISSA).
-ERC-FIRB workshop ``Mirror Symmetry, enumerative geometry and related topics'', Collegio Borromeo, Pavia, May 2014.
-ERC Research Meeting ``New directions in Donaldson-Thomas theory, BPS states and related topics'', Pavia, June 2013.
-Workshop on Algebra, geometry and Physics of BPS states, HIM Bonn, 12-14 November 2012.
-Workshop on Derived Categories, Cambridge, 11-15 April 2011.

Invited talks at international conferences (selected):
-Semi-plenary and section talks, XXI Congresso dell'Unione Matematica Italiana, Pavia, September 2019.
-Mirror Symmetry and Stability, Harvard University, 18 - 20 March 2019.
-Invited series of talks at the workshop ``D-modules, Quantum Geometry and related topics'', RIMS Kyoto, 3-7 December 2018.
-Conference on Teichmüller Theory in Higher Dimension and Mirror Symmetry, Angers, April 2017.
-Workshop on Hall Algebras, Enumerative Invariants and Gauge Theories, Toronto, November 2016.
-Algebraic Geometry: Old and New, Clay Mathematics Institute, Oxford, October 2016.
- Mini-symposium on K-stability, 7th ECM, Berlin, July 2016.
- Wokshop on Geometry from Stability Conditions, Warwick, February 2015.
- Maxim Kontsevich Masterclass, Tsinghua Sanya International Mathematics Forum, Hainan, PRC, December 2014.
- Workshop on the Geometry and Physics of moduli spaces, Miraflores de la Sierra, Madrid, June 2014.
- Vector Bundles on Algebraic Curves (VBAC) Conference 2012, CRM Barcelona, 18-22 June 2012.
- Conference on Wall-Crossings in Mathematics and Physics, Urbana-Champaign, May 2010.
- International Conference on Kähler and related geometries, Laboratoire de Mathematiques Jean Leray, Nantes, October 2009.
- Perspectives in Geometric Analysis, International Centre for Mathematical Research, Beijing, 27-31 October 2008.
- Intensive period on Extremal Kähler metrics and the Kähler-Ricci flow, CRM, Pisa, March 2008.

Invited mini-courses:
- Topics in complex geometry (15 hours), Scuola Galileiana Padova, first semester 2017-18.
- Stability data, irregular connections and tropical curves (3 lectures), Spring School on Irregular Hodge Structures and Stability Conditions, Mainz, March 2016.
- K-stability of projective varieties (5 hours), University of Coimbra, April 2014.
- Hyperkähler metrics and wall-crossing (4 lectures), Hausdorff Center, Bonn, July 2011.
- Recent results in Donaldson-Thomas theory (3 lectures), RIMS Kyoto, March 2010.
- Algebro-geometric stability and special metrics (3 lectures), BICMR, Beijing, October 2008.

Invited departmental seminars and colloquia (selected):
Paris Jussieu, February 2019; DPMMS Cambridge, March 2017; Oberseminar, Zürich, September 2014; DPMMS Cambridge, May 2014; Firenze, February 2014; Trento, February 2014; ESI Vienna, September 2013; EPFL Lausanne, March 2013; Bologna, February 2013; Lisbon, February 2013; Oberseminar, Hannover, November 2012; HIM Bonn, October 2012; MPIM Bonn, October

2012; Oxford, March 2012; ETH Zurich, March 2012; Edimburgh, April 2011; Colloquium, ZMP Hamburg, October 2010; Columbia, NY, May 2010; IC London, April 2010; IPMU Tokyo, March 2010; RIMS Kyoto, March 2010.

Teaching (non-Italian Institutions):
- Supervisor, Riemann Surfaces (Prof. P. M. H. Wilson), Michaelmas Term 2009 and 2010, DPMMS Cambridge. Supervising 5-6 groups of Trinity students.
- Supervisor, Geometry IB (Prof. B. Totaro), Lent Term 2010, DPMMS Cambridge. Supervising 5-6 groups of Trinity students.

Graduate courses:
- Graduate course on Differential Geometry, SISSA and Università di Trieste, academic years 2017-18, 2018-19, 2019-20.
- Graduate course ``Algebro-geometric stability'', SISSA, second semester 2016-17.
- Graduate course ``Kähler geometry'', SISSA, first semester 2016-17.
- Graduate course on Differential Geometry, Pavia, second semester 2014-15.

Past studies:
- Dottore di Ricerca in Matematica (Phd), 16 January 2009, Università degli Studi di Pavia. Thesis: ``Some applications of K-stability and K-energy''. Supervisor: Richard P. W. Thomas, Imperial College, London.

Pro Bono:
- Referee for JEMS, Inventiones, Duke, Adv. in Mathematics, Comm. Number Theory and Physics, IMRN, Math. Annalen, Pacific J. of Math., J. of Algebraic Combinatorics, J. Diff. Geometry, J. Symp. Geometry., Compositio, Asian Journal of Math., J. Geom. Phys.

Outreach (selected):
- Magazine feature: Platinum / Sole 24 Ore, July 2017 issue.
- Interviews, Il Piccolo Trieste, 7 March 2017 and 8 October 2019.
- Public lecture on the project ERC StG 307119, La Notte dei Ricercatori, Pavia, September 2015.
- Public lecture ``Geometrie di Gauss e di Riemann'', Lezioni Einstein 2015, Pavia, March 2015.
- Collaboration with the Italian ``Piano Lauree Scientifiche'' outreach program for secondary school students.