'Cycle classes on moduli spaces of K3 surfaces'

Winter term 2014/15, Tuesday 2-4pm, 0.011

For further information or if you want to give a talk in the seminar, please contact one of us huybrech@ or zhtian@.

21 October:
Picard groups of moduli spaces of K3 surfaces I
(Speaker: Zhiyu Tian)

28 October:
Picard groups of moduli spaces of K3 surfaces II
(Speaker: Zhiyu Tian)

4 November:
Hodge structures of weight one and two of $\mathcal{K}_g$
(Speaker: Yohan Brunebarbe)

18 November:
The Picard number of the moduli space cannot be bounded (after O'Grady)
(Andrey Soldatenkov)

9. December:
Decomposition theorems for families of K3 surfaces (after Voisin)
(Speaker: Ulrike Rieß)

13. January:
Tautological classes on moduli spaces of K3 surfaces (after van der Geer and Katsura), Part I
(Speaker: Daniel Huybrechts)

20. January:
Tautological classes on moduli spaces of K3 surfaces (after van der Geer and Katsura), Part II
(Speaker: Daniel Huybrechts)

References

[1] Torsten Ekedahl and Gerard van der Geer *Cycle classes on the moduli of K3 surfaces in positive characteristic.* Selecta Math 2014. math.AG/1104.3024

[2] Gerard van der Geer and Toshiyuki Katsura *Note on tautological classes of moduli of K3 surfaces.* Moscow Math Journal 5 (2005), no. 4, 775–779. math.AG/0505211.

[3] Gerard van der Geer and Toshiyuki Katsura *On as Stratification of the Moduli of K3 Surfaces.* JEMS 2 (2000). math.AG/9910061.

[4] Francois Greer, Zhiyuan Li, and Zhiyu Tian *Picard groups on moduli of K3 surfaces with Mukai models.* arXiv:1402.2330.

[5] Zhiyuan Li and Zhiyu Tian *Moduli of complete intersection K3 surfaces.* arXiv:1304.3219.

[6] Stephen Kudla *A note about special cycles on moduli spaces of K3 surfaces.* Arithmetic and geometry of K3 surfaces and Calabi-Yau threefolds, 411-427 Fields Inst. Commun., 67, Springer, New York, 2013.

[7] Davesh Maulik, Rahul Pandharipande *Gromov-Witten theory and Noether-Lefschetz theory.* A celebration of algebraic geometry, 469507, Clay Math. Proc., 18, Amer. Math. Soc., Providence, RI, 2013.

[8] Kieran O'Grady *On the Picard group of the moduli space for K3 surfaces.* Duke Math. J. 53(1):117–124, 1986.

[9] Kieran O'Grady. *Moduli of abelian and K3 surfaces.* ProQuest LLC, Ann Arbor, MI, 1986. Thesis (Ph.D.)Brown University.

[10] Claire Voisin *Chow rings and decomposition theorems for families of K3 surfaces and Calabi-Yau hypersurfaces.* Geometry & Topology 16 (2012) 433–473. arXiv:1102.1607

[11] Claire Voisin *Chow rings, decomposition of the diagonal and the topology of families.* Annals of Math. Studies 187, Princeton University Press 2014.