Instructor: Dori Bejleri (bejleri@math.harvard.edu)

Course description: K3 surfaces are one of the most well known objects in algebraic geometry. Their study involves many facets including Hodge structures, moduli spaces, periods, derived categories, birational techniques, Chow rings, and deformation theory. This course will serve as an introduction to the geometry of K3 surfaces covering many of these facets as well as recent developments.

Time and place: Monday + Wednesday 1:30pm - 3:00pm in SC 221.

Text: Huybrechts, *Lectures on K3 surfaces.* Cambridge University Press, 2016. Full text available under the library reserves tab.

Office hours: Friday 2pm-3pm in SC 525

Prerequisites: Algebraic geometry at the level of a first year graduate course (e.g. chapters 2 and 3 of Hartshorneâ€™s Algebraic Geometry). Some algebraic topology may also be useful.

Grades: The grade for undergraduate students will be based off of course participation and a final paper on a topic related to the course material.

Final paper due May 10th at 5pm