

Interesting Topological Spaces in Algebraic Geometry

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1 Ideas for Spaces

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- Curves
 - Elliptic Curves
 - Higher genus
 - Hyperelliptic curves
- Surfaces
 - Klein Quartic
 - Compact Riemann surfaces
 - Enriques surfaces
 - $K3$ Surfaces
 - Kummer surfaces
 - Del Pezzo surfaces
- Fake projective planes
- Conics
- Kahler Manifolds
- Calabi-Yau manifolds
- Hurwitz schemes
- Topological galois groups, e.g. $G(\bar{F}/F)$ for $F = \mathbb{Q}, \mathbb{F}_p$.
- $\text{Spec}(R)$ for R a DVR (a Sierpinski space)
- Quiver Grassmannians
- Rigid analytic spaces