

# Automorphism group of smooth hypersurfaces

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Ref: <https://arxiv.org/abs/2405.09505> Consider  $X_{n,d} \subset \mathbb{P}^{n+1}$  is

- CY
- fano
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**Theorem 0.1** (matsumura-monsky). *for  $n \geq 2, d \geq 3$ ,  $\text{Aut} X_{n,d} = \text{Lin}(X)$  is finite.*

Where  $\text{Lin}(X)$  are autos that extends to auto of  $\mathbb{P}^{n+1}$

conterquestion: Given finite  $G \subset PGL(n+2)$ , find  $F$  and  $X = V(F)$ .

**Remark 0.2.** *A lot computation is done by computers.*