## Arrangements of linear spaces with symmetries

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$\mathcal{A}=\bigcup_{i=1}^{k} L_{i} \subseteq \mathbb{P}^{n}$ a $G$-invariant arrangement of linear spaces, where $G=$ reflection group generated by coordinate hyperplanes.

- Describe the image of $\mathcal{A}$ under the quotient $\mathbb{P}^{n} \rightarrow \mathbb{P}^{n} / G$.
- Which polynomial functions vanish on the arrangement $\mathcal{A}$ ?

On which combinatorial structure do the answers depend?

