

We aim to construct closed polytope (like \overline{R}_t)
to analyse the cases that fail to satisfy the ϕ inequalities
for ϕ the average for C62,63,72,73.

- Inequalities list formed in Main.
- dimension checked via sage in polytop-higher-cases...
- Export them back inequalities.

We have ϕ inequalities of the form (for line
bundle multidegrees).

$$\left| \sum_{i \in I} d_i - \sum_{i \in I} \phi_i \right| < \text{cut fraction}(ct) \quad (1)$$

To be applied to the `polyhedron()` function in Sage

this need to be in the form $A\underline{x} + b \geq 0$

by (1) we have (upper part)

$$\sum_{i \in I} d_i - \sum_{i \in I} \phi_i < Cf$$

$$\Leftrightarrow \sum_{i \in I} \phi_i + (Cf - \sum_{i \in I} d_i) > 0$$

and a lower part

$$\sum_{i \in I} d_i - \sum_{i \in I} \phi_i > -Cf$$

$$\Leftrightarrow -\sum_{i \in I} \phi_i + (Cf + \sum_{i \in I} d_i) > 0$$

As a test case we will focus on a
GLSS example first.