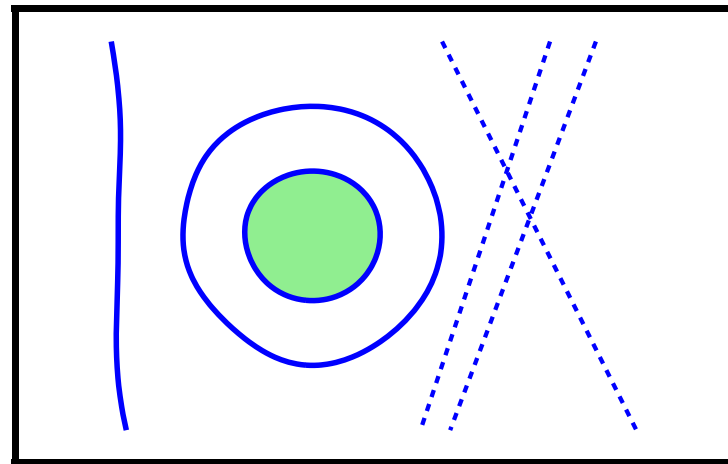


PGMO Project

# Hyperbolic Polynomials: Algorithms and Implementations

Simone Naldi



PGMO DAYS 2020 – December 2020





## PGMO Project



### *General goals*

- Algorithms for hyperbolic polynomials
- Geometry of hyperbolic programming
- Software implementations

### *Research directions*

- Symmetric determinantal representations
- Hyperbolic programming and relaxations

More info at :

[https://www.unilim.fr/pages\\_perso/simone.naldi/pgmo18.html](https://www.unilim.fr/pages_perso/simone.naldi/pgmo18.html)

*Spectrahedral representation of hyperbolic plane curves*

M. Kummer, S. Naldi and D. Plaumann

*Pac. J. Math.* 303-1 (2019), 243–263

