

# Computing fundamental domains of crystallographic groups

With connections to topological interlocking

Lukas Schnelle

GAPDays Summer 2024

Fund. Domain Crystallographic group Bieberbach volume of fund  
dom Dirichlet Cells

the problem of Computing Dirichlet Cells

current approach to computations - theorem that word length  
corresponds to distance - algo that incorporates that knowledge

connections to TIA  $\rightarrow$  deformations

**Thank you for your attention**

References: