

# **MODELLING POLYCRYSTALLINE MICROSTRUCTURES WITH LAGUERRE DIAGRAMS**

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We present techniques for the approximation of polycrystalline materials using Laguerre diagrams. Laguerre diagrams are a polyhedral partition of space that arise naturally in the theory of semi-discrete optimal transport. We describe how to generate diagrams with given target volumes and discuss progress in understanding whether and how it is possible to produce diagrams with given target volumes and given target centroids.