Energy minimization for periodic sets in Euclidean spaces
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We study the local optimality of periodic point sets in Euclidean spaces for energy minimization in the Gaussian core model. We obtain a characterization of periodic point sets being universally "critical", in terms of weighted spherical 2-designs contained in the set. Of special interest is the periodic (non lattice) packing Dn+, for which we obtain more precise results.

This is a joint work with Achill Schürmann.