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Nodal-antinodal dichotomy in underdoped cuprates: a cluster-dynamical mean-field theory perspective.

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A distinctive feature of the normal state of underdoped cuprates is the strong dichotomy between nodal and antinodal regions. The nodal regions display well-defined quasiparticle excitations. In contrast, single-particle lineshapes are very broad near the antinodes, where a pseudogap opens. Cluster extensions of dynamical mean-field theory provide an understanding of this phenomenon as a momentum-selective Mott transition. This will be reviewed in this talk and confronted to experiments and to other theoretical approaches.