

# **Coronal heating and the need for high-resolution observations**

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Despite excellent progress in recent years in understanding coronal heating, there remain many crucial questions that are still unanswered. Limitations in the observations are one important reason. Both theoretical and observational considerations point to the importance of small spatial scales, impulsive energy release, strong dynamics, and extreme plasma nonuniformity. As a consequence, high spatial resolution, broad temperature coverage, high temperature fidelity, and sensitivity to velocities and densities are all critical observational parameters. Current instruments lack one or more of these properties, and this has led to considerable ambiguity and confusion. In this talk, I will discuss recent ideas about coronal heating and emphasize that high spatial resolution observations, especially spectroscopic observations, are needed to make major progress on this important problem.