AR heating - observational constraints

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In this presentation I review a few observational aspects that are related to the continuous heating in active regions, in particular spectroscopic measurements of plasma characteristics.

While there is now a growing consensus on the different coronal loop structures that are present, their densities and temperatures, their evolution is still unclear. The quest for signatures of nanoflare heating in terms of the presence of hot plasma above 3 MK has produced contradicting results. Recently, there has been renewed interest on the issue of chemical abundances and their variations, especially in light of future Solar Orbiter observations. Recent observations and comments on future prospects are presented.