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Radiation transfer experiments using high-power lasers.

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Experiments using high-power lasers that investigate radiation transfer have been undertaken for many years. We shall summarise different experimental approaches that have been used and consider what has been learned from those experiments which include studies of diffusive energy flow and line radiation transfer both in static plasmas and where there is a large plasma velocity gradient. We shall conclude with a discussion of recent theoretical work studying the effect of plasma geometry on line radiation transfer, together with its application to astrophysical observations and laboratory experiments.