1032-78-58 **Tiffany R Hayes***, 1601 Lead Ave SE, Albuquerque, NM 87106. *Calculating the Temperature of Short-Lived Plasma.* Preliminary report.

Plasma makes up 99% of normal matter, and most of the matter seen in astrophysics falls into this category. However, this fourth state of matter is not well understood, and so experiments are conducted. Plasma produced from inertia confined fusion (ICF) stays together for nanoseconds. Due to the shortness of the process a normal spectrometer is unable to be used. Instead, images are taken every four picoseconds using a special camera. This talk will present the image analysis methods used to calculate the temperature. (Received August 06, 2007)