

METHODS IN VELOCITY DISCRIMINATION APPLIED TO DO STARS

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We describe a method of velocity discrimination to determine the origin of unknown lines in the FUV spectra of white dwarfs. This method utilizes the similarities between the spectra of white dwarfs of similar temperatures to identify if the lines belong to the star or to the interstellar medium. It also allows us to identify the origin of a line without necessarily knowing its identity in advance, yielding a powerful tool in mapping the spectral region. The large number of unidentified lines in the FUV spectra of DOs and PG1159 stars have withstood most attempts of identification to date. It has been suggested that unidentified features could be caused by high ionisation/high excitation features that are not currently included in spectral line lists or it may be that features from as yet unconsidered iron group species could be the problem. We evaluate both possibilities whilst providing a numerical method for determining the true identity of the lines.