1112-16-370 **Angel del Rio*** (adelrio@um.es), Departamento de Matematicas, Universidad de Murcia, 30100 Murcia, Murcia, Spain, and **Mariano Serrano** (mariano.serrano@um.es), Departamento de Matematicas, Universidad de Murcia, 30100 Murcia, Murcia, Spain. *How much HeLP can help to describe the torsion units in integral group rings?*

Let G be a finite group and let $V(\mathbb{Z}G)$ denote the group of normalized units in the group ring $\mathbb{Z}G$. Hans Zassenhaus conjectured that every torsion unit of $V(\mathbb{Z}G)$ is conjugate in $\mathbb{Q}G$ to an element of G. This is still an open question which has been verified for nilpotent groups, for cyclic-by-abelian groups and some other families of groups. It has also been verified in a few groups of special type as some symmetric and some projective linear groups of small order.

Marciniak, Ritter, Sehgal and Weiss related Zassenhaus Conjecture with the partial augmentations of the torsion units and Luthar, Passi and Hertweck provided constrains on the partial augmentations of the torsion units. One way to prove Zassenhaus Conjecture consists in showing that the only possible partial augmentations allowed by this constrains are those given in the Marciniak-Ritter-Sehgal-Weiss result. This is the so called the HeLP Method. For example, by results of Hertweck and Margolis one can prove Zassenhaus Conjecture for units of prime power order in $V(\mathbb{Z}G)$, with G a projective special linear group. The aim of this talk is to present the limits of the HeLP Method for projective special linear groups. (Received August 09, 2015)