1015-43-190 **Carlos Prez*** (carlosperez@us.es), Departamento de Analisis Matematico, Facultad de Matematicas, Universidad de Sevilla, 41080 Sevilla, Spain, and **David Cruz-Uribe, SFO** and **Jose Maria Martell**. *The extrapolation theorem of Rubio de Francia: a new proof.* Preliminary report.

The extrapolation theorem of Rubio de Francia is one of the main and most beautiful theorems in modern Harmonic Analysis. It is a useful tool since it gives a very effective method to prove boundedness of operators on the Lp spaces trough information from the (weighted) L2 case.

In this talk we will briefly describe a new proof of this Theorem. The main advantages of this new proof is that is direct and relative elementary within the Lp case and that can be extended to a much wider class of spaces such as the rearrangement invariant Banach Function Spaces.

The talk is part of a joint work with D. Cruz-Uribe and J.M. Martell (Received February 05, 2006)