



**For Details, Contact:**

**S. Soula**

Laboratoire d'Aérodologie, UMR  
5560, CNRS/Université Paul  
Sabatier, OMP, Toulouse, France

## Conference on European Tornadoes and Severe Storms

### **Correlation between lightning activity and rainfall in severe thunderstorms**

*S. Soula and S. Chauzy*

*Laboratoire d'Aérodologie, UMR 5560, CNRS/Université Paul Sabatier, OMP, Toulouse, France*

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The correlation between lightning and rain activities can be estimated in terms of location, of evolution rates and of water volume per flash. Furthermore, other parameters as the height of the cloud, the cell displacement, the convection factors can be considered, and on the other hand some characteristics of the electric activity as the positive CG (cloud-to-ground) flash proportion and the IC (intra-cloud) flash/cloud-to-ground flash ratio can be also considered. This study presents some results obtained from data issued from French networks and for some typical severe thunderstorms. It includes the case of a quasi stationary system in Northern Spain (Biescas - 1996) and a system with a very strong displacement in the area of Paris (France) occurred on May 30 of 1999. The case of hail thunderstorms is also presented and in this case we observe a very low CG flash activity.

