

### ***Poster summary***

***Cerutti Juan José – PhD. XXXII Cycle***

The poster contains an overall view of the project, including the precedent research, description of the test and the achievements of the first year of my PhD. studies.

On the top are described the motivations and objectives of the thesis. This includes the CO<sub>2</sub> emission problem and the effect on the automotive industry, and how the improvement of aerodynamics on vehicles can help to the emission reduction.

Then the experiment is briefly described, in which the model and the experimental setup is shown. The measurement devices and the systems of the test are also described. Furthermore, the first results obtained on the precedent research are presented.

Finally, the achievements of the first year are shown including the flow visualization of the wake through laser, the analysis of different geometrical configurations (partialization) of the active flow control system, hot wire technique for velocity and turbulence measurements, and advanced data analysis consisting on spectrum, cross correlation and wavelet analysis.