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Interactive comment on "Trends of road dust emissions contributions on ambient PM levels at rural, urban and industrial sites in Southern Spain" *by* F. Amato et al.

Anonymous Referee #2

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The paper focuses in the improvement of our knowledge of the impacts of road dust emissions to the levels of particulate matter in ambient air in southern Spain. This is a very important issue, since most abatement strategies and emission reduction technologies which try to minimize PM10 and PM2.5 levels mainly focus in reducing direct tailpipe emissions, which sometimes can be insufficient especially in mediterranean countries in southern Europe like Spain, Portugal, or Greece. This can be explained due to the drier climate that favors the occurrence of higher levels of atmospheric particles, as well as due to occasional intrusion of air masses from the Sahara Desert.

The paper is presented in a clear and concise way. The methodology used in the study

was appropriate, with a significant number of samples collected regarding both spatial and temporal variability, which allows for a statistically significant analysis of results. The analytical methodology is adequately detailed. However it would be interesting to explain in more detail the method of elemental analysis used for determining TC, as was done in relation to the analysis of major and trace elements and ions. The results regarding the road dust trends at the traffic sites and industrial sites are adequately explained, although I agree with the other Referee's comments on the fact that the similarities in road dust contribution between traffic sites and urban background sites should be better explained in the conclusions of the article.

I also recommend the authors some minor English revisions, for example in P. 31948, L. 1 - "maximum" and "minimum" instead of "maxima" and "minima" , or P. 31935, L. 11 - "(...)were found at (...)", instead of "(...)where found at(...)".

Finally, the quality and number of references denotes an exhaustive research and adds value and relevance to the article. However, despite the fact that the displayed images are clear, easily interpreted, and appropriate, there are some missing elements in the discussion paper: Figures S1, S2 S3, S4 and S5, and Tables S1, S2 (all referenced in the text) seem to be missing.

In conclusion, I fully support the publication of this article, with the minor revisions stated above.

Interactive comment on Atmos. Chem. Phys. Discuss., 13, 31933, 2013.