Atmos. Meas. Tech. Discuss., 8, C2592–C2593, 2015
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Atmospheric Measurement Techniques Discussions

Interactive comment on "Characterization of Mediterranean hail-bearing storms using an operational polarimetric X-band radar" *by* G. Vulpiani et al.

Anonymous Referee #5

Received and published: 14 August 2015

This paper analyses in detail two storms using primarily polarimetric radar data at X-band. The paper is clear and well written and the cases are a nice illustration of X-band polarimetric data signatures of storms to add to the increasing literature corpus. I have no major objections to the publication of this article once its English is revised.

General comments: 1. I would like the authors to comment on the influence of the backscatter co-polar differential phase, deltaco in their retrieved Kdp and Phidp. If I understood correctly the methodology if deltaco is not filtered properly it may result in an overestimation of Phidp all along the path after the area of significant deltaco.

Specific comments: Through the article the language should be revised. I note here only some of the errors I have spotted.

Page 7203 Line 23: ... the same type of radar . . . Page 7203 Line 24: . . . discrimination between . . . Page 7203 Line 25: . . . If the objective . . . Page 7205 Line 13: .. be used by the forecaster . . . Page 7208 Line 1: . . . for attenuation correction . . . Page 7210 Line 15: . . . moved south-east . . . Page 7210 Line 15: . . . intense precipitation cores . . . Page 7210 Line 19: . . . which mainly affects the . . . (revise use of past and present through the text) Page 7210 Line 21: . . . presence of a hail nucleus.Despite that the adopted . . . Page 7211 Line 25: . . . originated around 04:00 UTC and lasted . . . Page 7211 Line 25: . . . Also in this case, . . . Page 7212 Line 10: . . . the storm reaches . . . Page 7212 Line 19: . . . of the polarimetric radar . . . Page 7214 Line 17: . . . possible to reconstruct the storm characteristics in a satisfactory way, . . .

Interactive comment on Atmos. Meas. Tech. Discuss., 8, 7201, 2015.