

# ***Interactive comment on “Ammonia emissions from a grazed field estimated by miniDOAS measurements and inverse dispersion modelling” by Michael Bell et al.***

## **Anonymous Referee #2**

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Comments on " Ammonia emissions from a grazed field estimated by miniDOAS measurements and inverse dispersion modelling"

Submitted by Michael Bell et al.,

This paper describes NH<sub>3</sub> measurements from a field grazed by dairy cattle with 3 open path miniDOAS. The measured concentration gradients are used within a backward Lagrangian Stochastic model (bLSm) to compute the ammonia fluxes from a grazed field. The paper is clearly structured and well written and I recommend it for publication with very minor revisions

Minor comments Chapter 2.2: Ammonia measurements The authors could give some

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numbers regarding the quality of the measurements of the paper of Sintermann et al. 2016, e.g. for the calibration procedure and the comparison of the 3 miniDOAS systems. Line 252: Give standard deviation of  $R_c$  value, as the individual points show large variability in the figure. Line 446: unpublished data could be shown in the supplements Line 498: Replace QS5 by QS3 (also in Figure 4 and 6) Figure 4: Add cattle presence (like figure 6) and change QS5 to QS3

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Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2016-350, 2016.

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