The BRAMS Zoo, a citizen science project

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Currently, the BRAMS network comprises around 30 receiving stations, and each station collects 24 hours of data per day. With such a large number of raw data, automatic detection of meteor echoes is mandatory. Several algorithms have been developed, using different techniques. (They are discussed in the Proceedings of IMC 2014.) This task is complicated because of the presence of parasitic signals (mostly airplane echoes) on one hand and the fact that some meteor echoes (overdense) exhibit complex shapes that are hard to recognize on the other hand. Currently, none of the algorithms can perfectly mimic the human eye which stays the best detector.

Therefore we plan to collaborate with Citizen Science in order to create a "BRAMS zoo". The idea is to ask their very large community of users to draw boxes around meteor echoes in spectrograms. The results will be used to assess the accuracy of the automatic detection algorithms on a large data set. We will focus on a few selected meteor showers which are always more fascinating for the large public than the sporadic background. Moreover, during meteor showers, many more complex overdense echoes are observed for which current automatic detection methods might fail. Finally, the dataset of manually detected meteors can also be useful e.g. for IMCCE to study the dynamic evolution of cometary dust.

Note from the editors

No paper has been submitted. Please contact the author if you want more information about this topic.



The author, Stijn Calders, during his lecture (Photo Axel Haas).