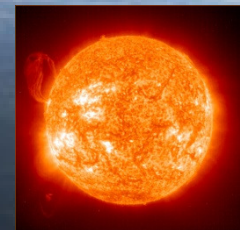
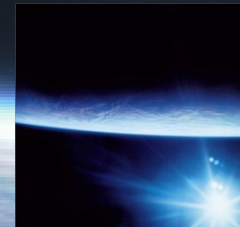


Belgian Institute for Space Aeronomy (BIRA-IASB)

Institut d'Aéronomie Spatiale de Belgique (IASB)

Belgisch Instituut voor Ruimte-Aëronomie (BIRA)

The BRAMS Zoo



Stijn Calders



[+ Invert galaxy image](#)

[+ Add to my favourites](#)

Classify galaxies

Answer the question below using the buttons provided.

Is the galaxy simply smooth and rounded, with no sign of a disk?



Smooth



Features or disk

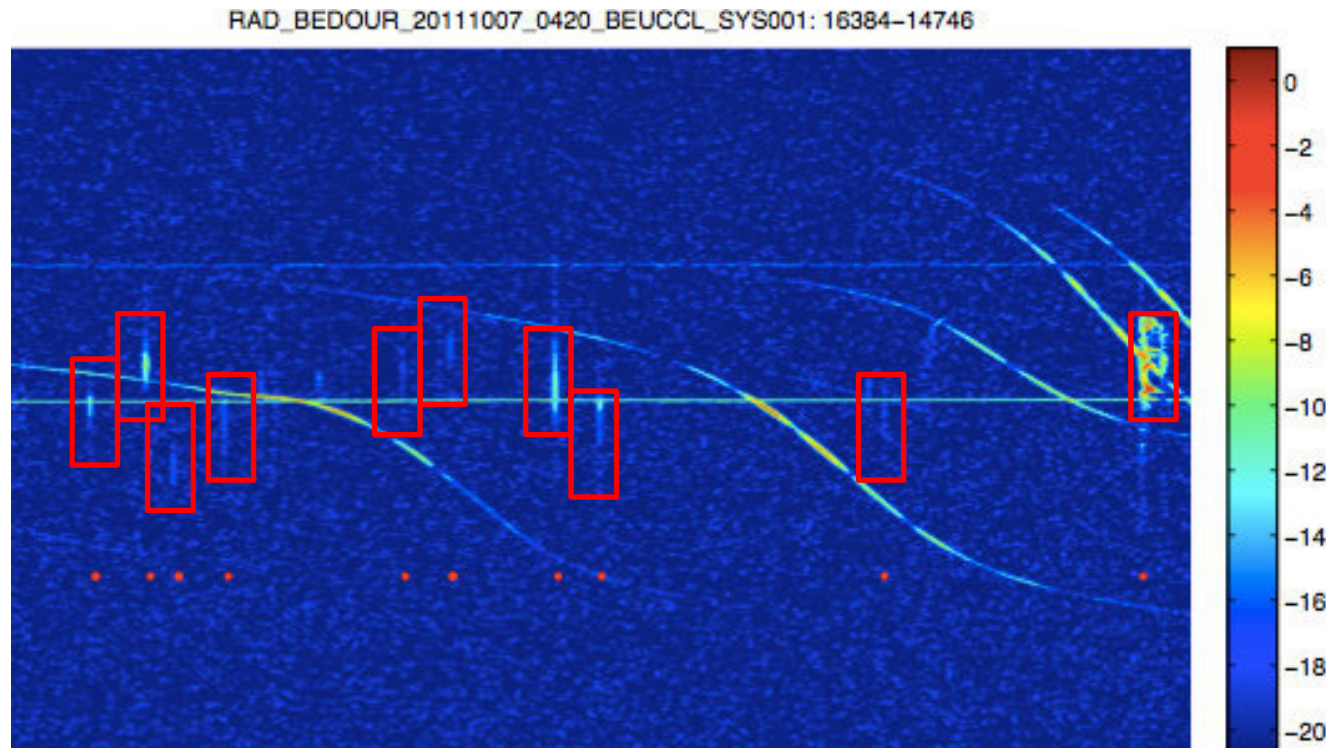


Star or artifact

Automatic detection algorithms

BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY

- Automatic detection algorithms need to be calibrated.
- They also need to be validated on test data.



Automatic detection algorithms

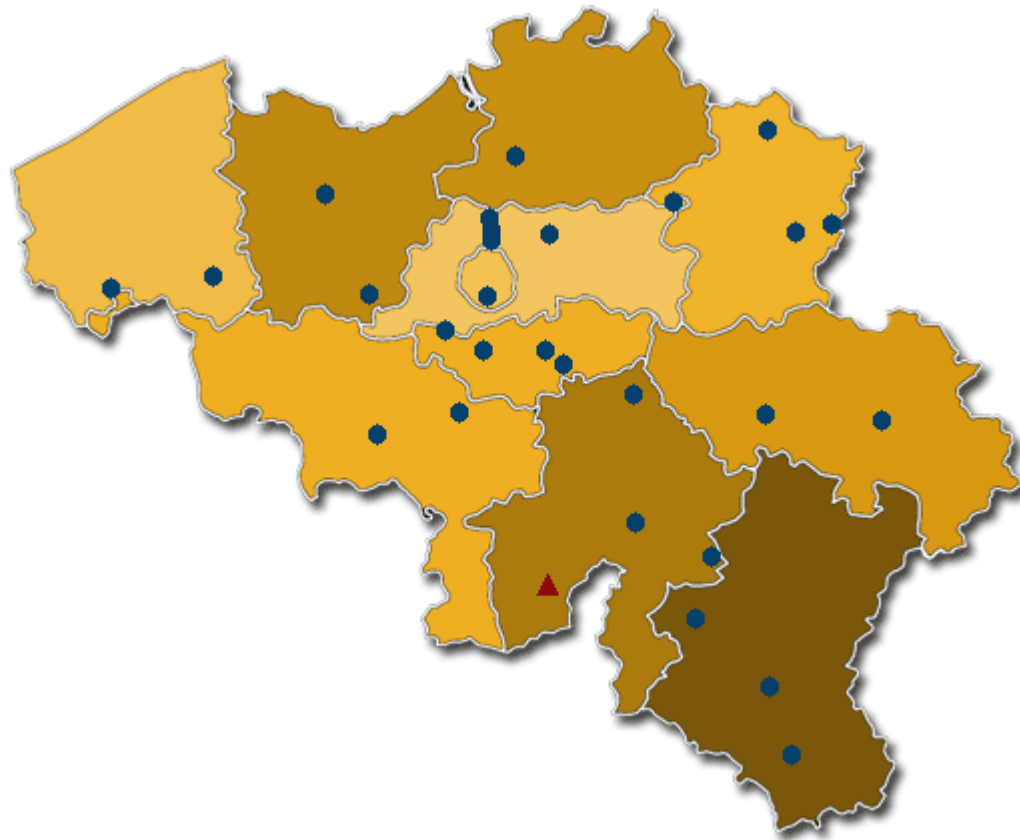
BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY

- Automatic detection algorithms need to be calibrated.
- They also need to be validated on test data.

So we need a set of
manually detected meteors.

BRAMS network

- ~30 stations all over Belgium
- Each station: 1GB data/day

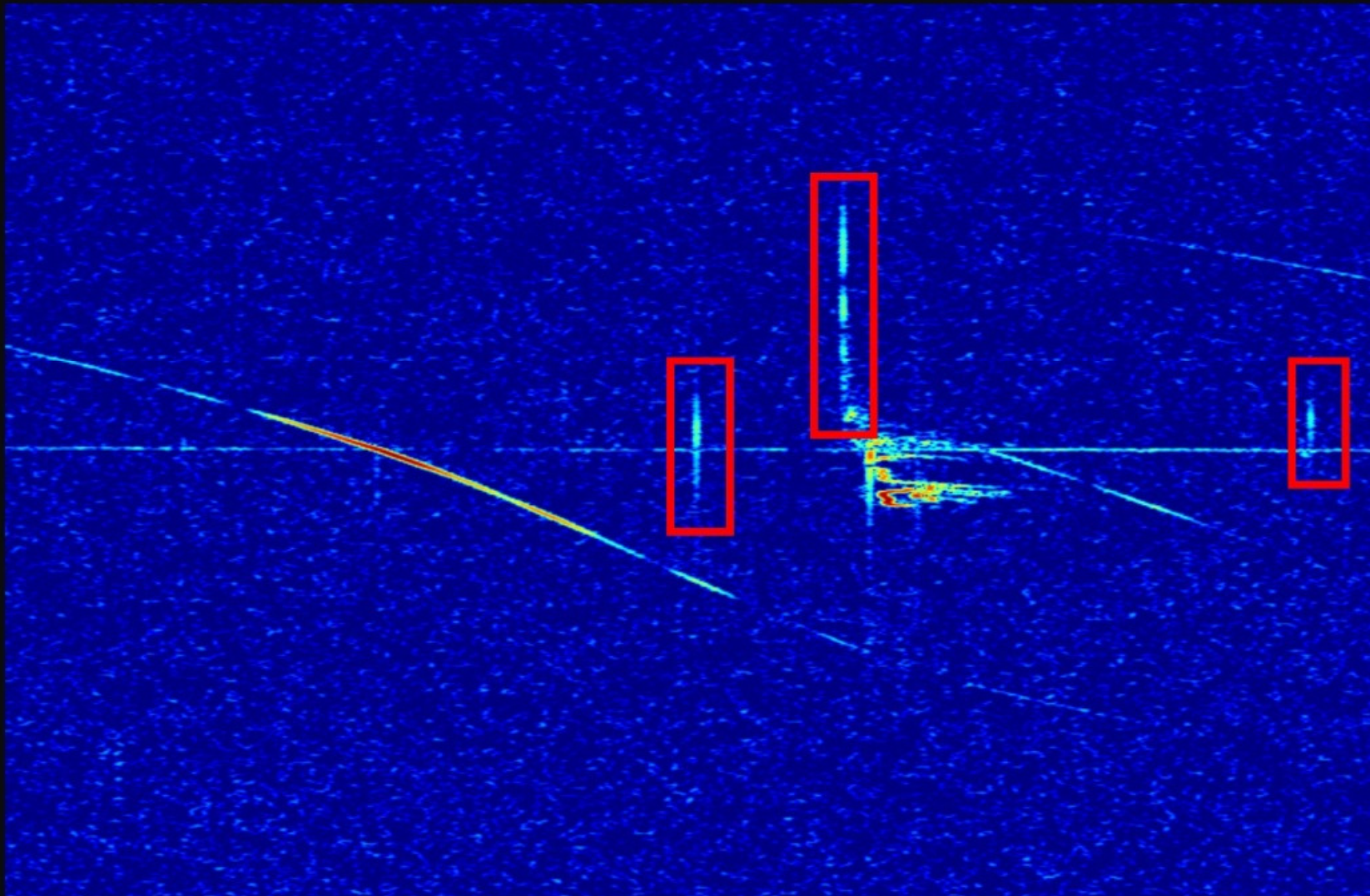


BRAMS

Zoo

[Home](#) [How To Take Part](#) [My Galaxies](#) [Contact Us](#)

[Profile](#) [Logout](#)



Houston, we have a problem!

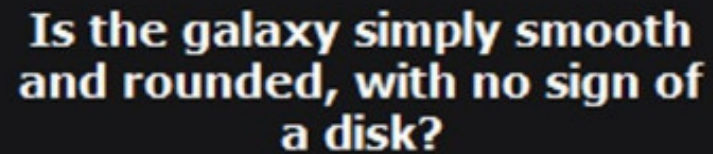
In Galaxy Zoo:

- Limited number of options.
- You can calculate the chance that an option is selected 'by accident'.



In Galaxy Zoo:

- Limited number of options.
- You can calculate the chance that an option is selected 'by accident'.



Features or disk

Star or artifact

1x

4x

1x

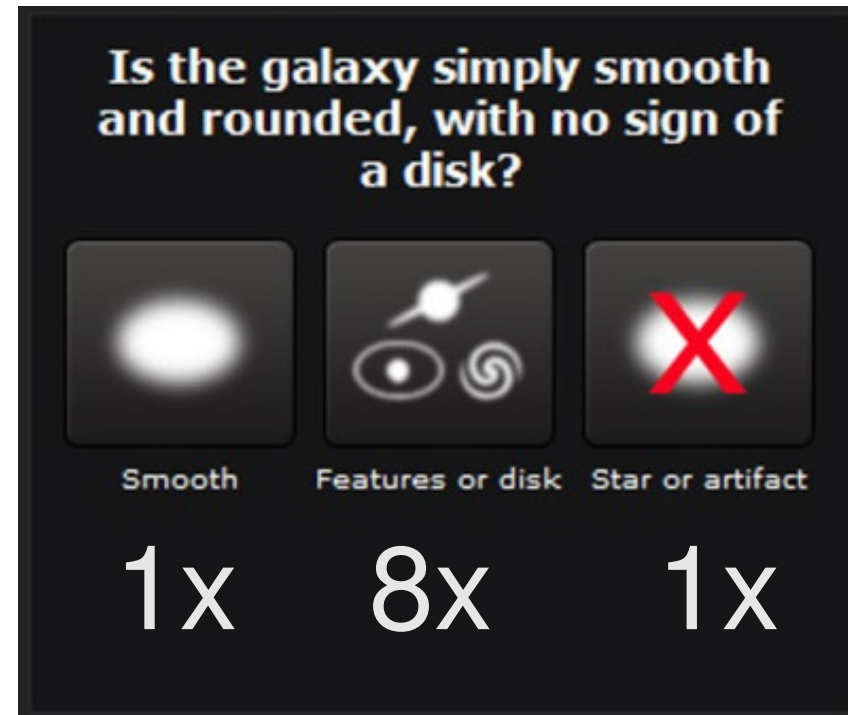
$$P(\text{option 2}) = 8\%$$

Houston, we have a problem!

BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY

In Galaxy Zoo:

- Limited number of options.
- You can calculate the chance that an option is selected 'by accident'.



$$P(\text{option 2}) = 0.3\%$$

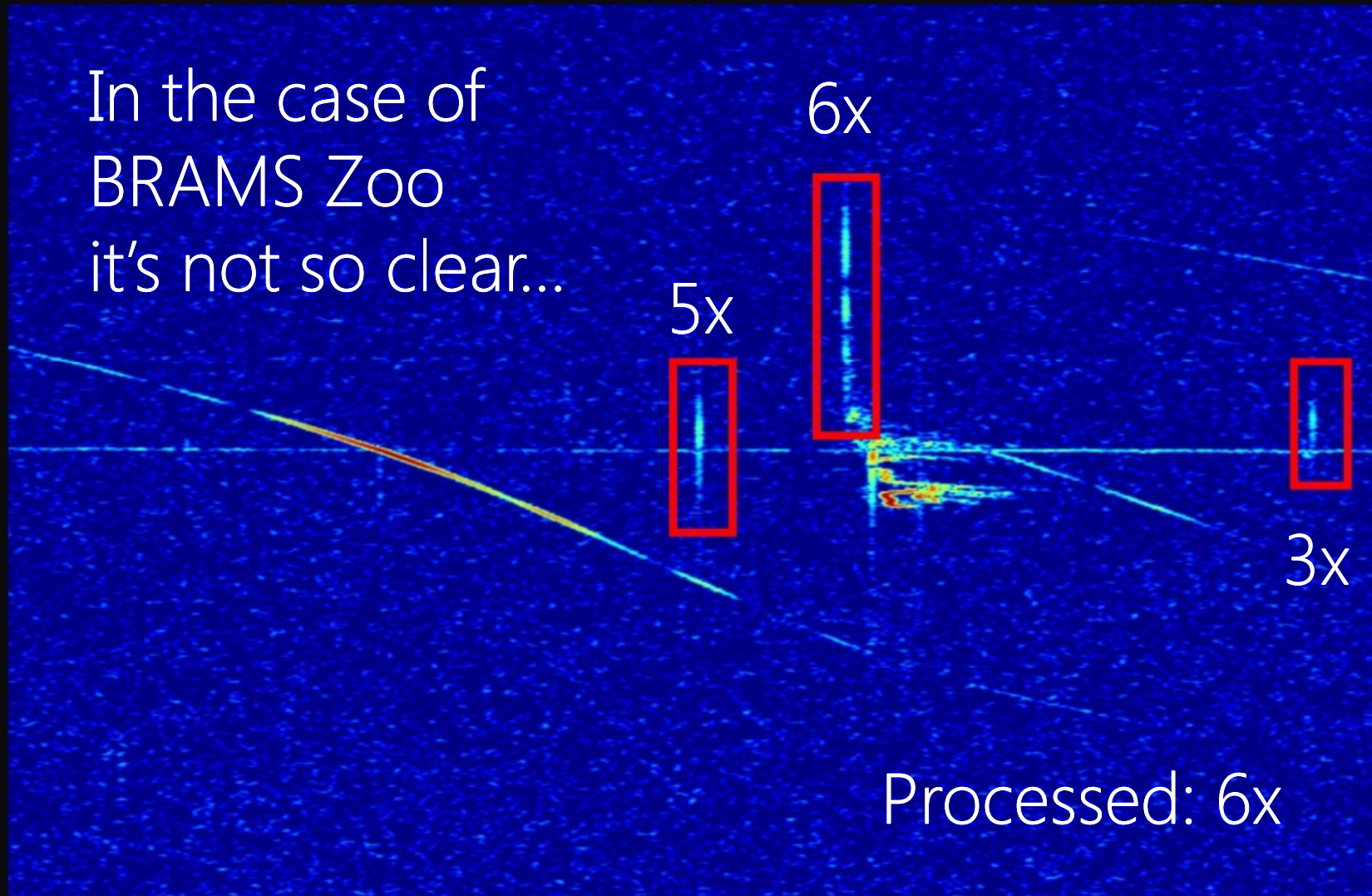
In the case of
BRAMS Zoo
it's not so clear...

5x

6x

3x

Processed: 6x



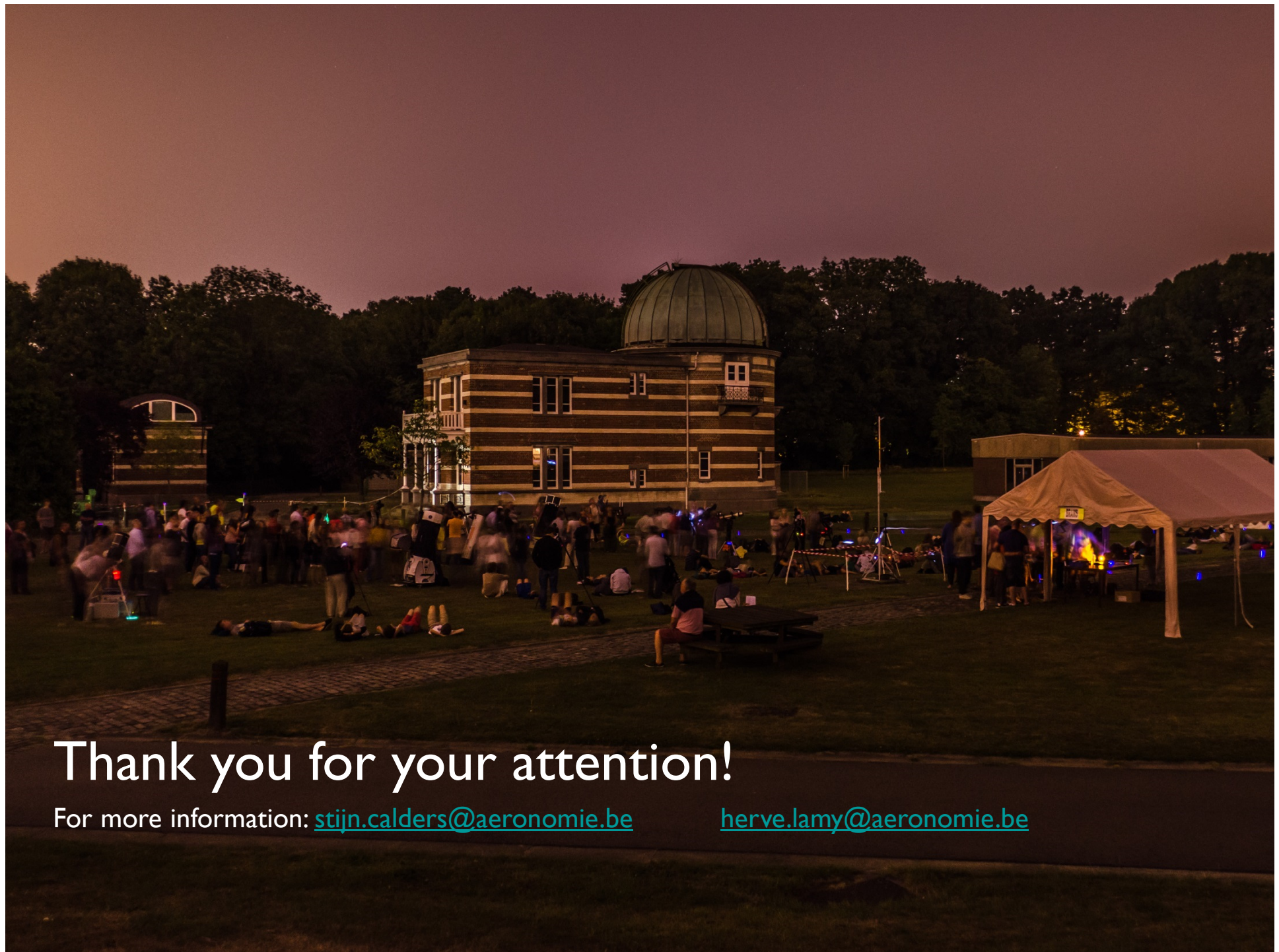


Why should you contribute?

BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERON

- You will contribute to meteor research
- Our radio data can improve the predictions
- It's fun!

“The important thing is not to stop questioning; curiosity has its own reason for existing.” – Albert Einstein



Thank you for your attention!

For more information: stijn.calders@aeronomie.be

herve.lamy@aeronomie.be