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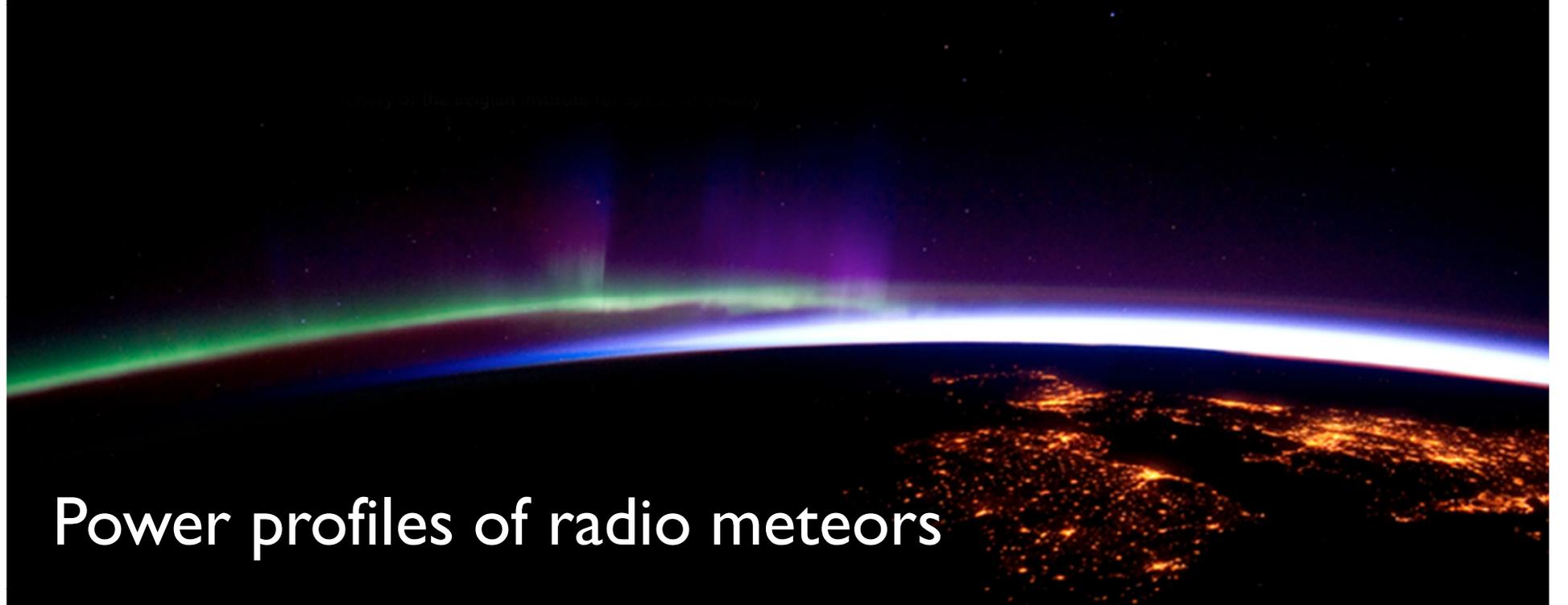


Belgian Institute for Space Aeronomy (BIRA-IASB)

Institut d'Aéronomie Spatiale de Belgique (IASB)

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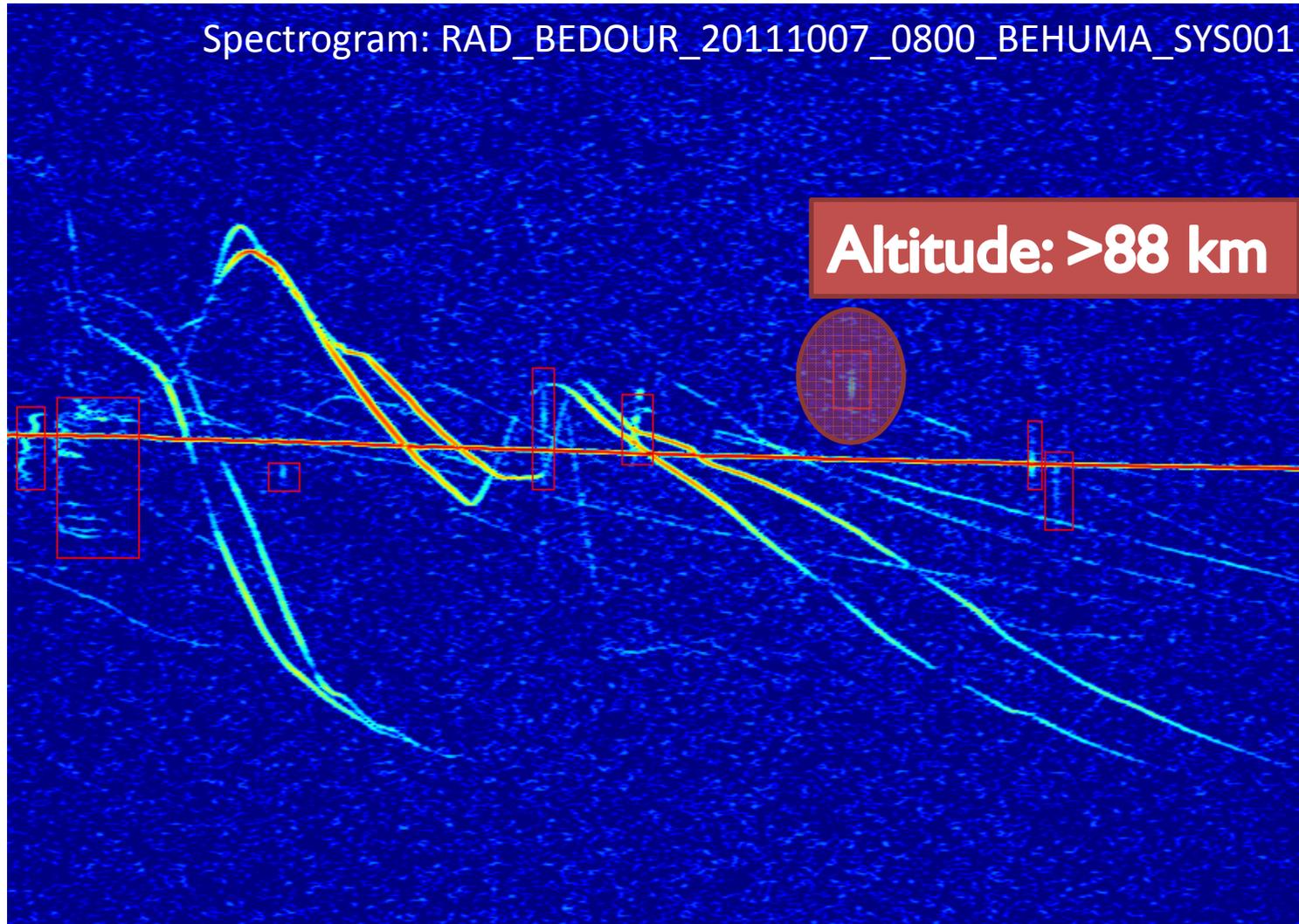
BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE FOR SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE FOR SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AE



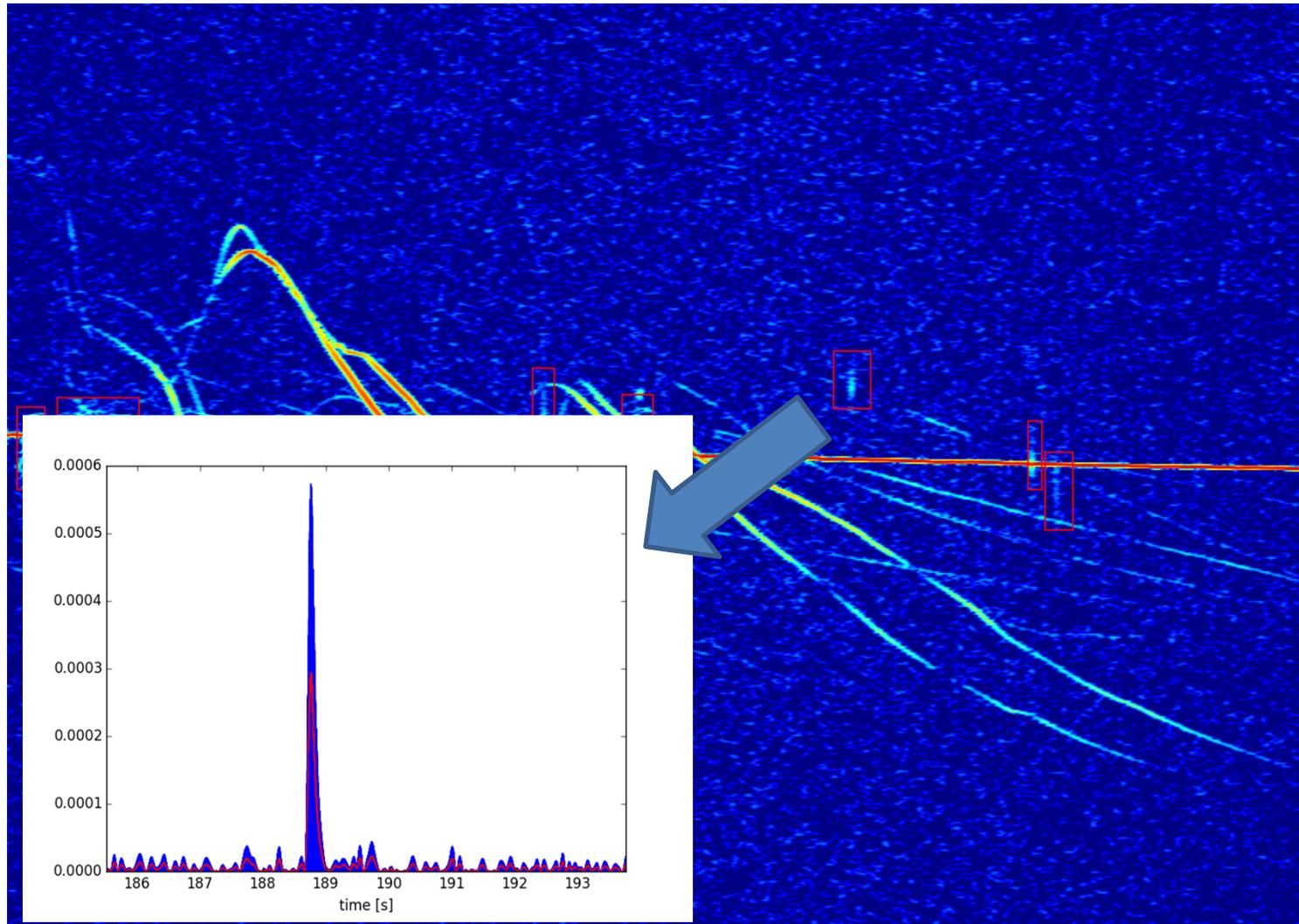
Power profiles of radio meteors

Stijn Calders

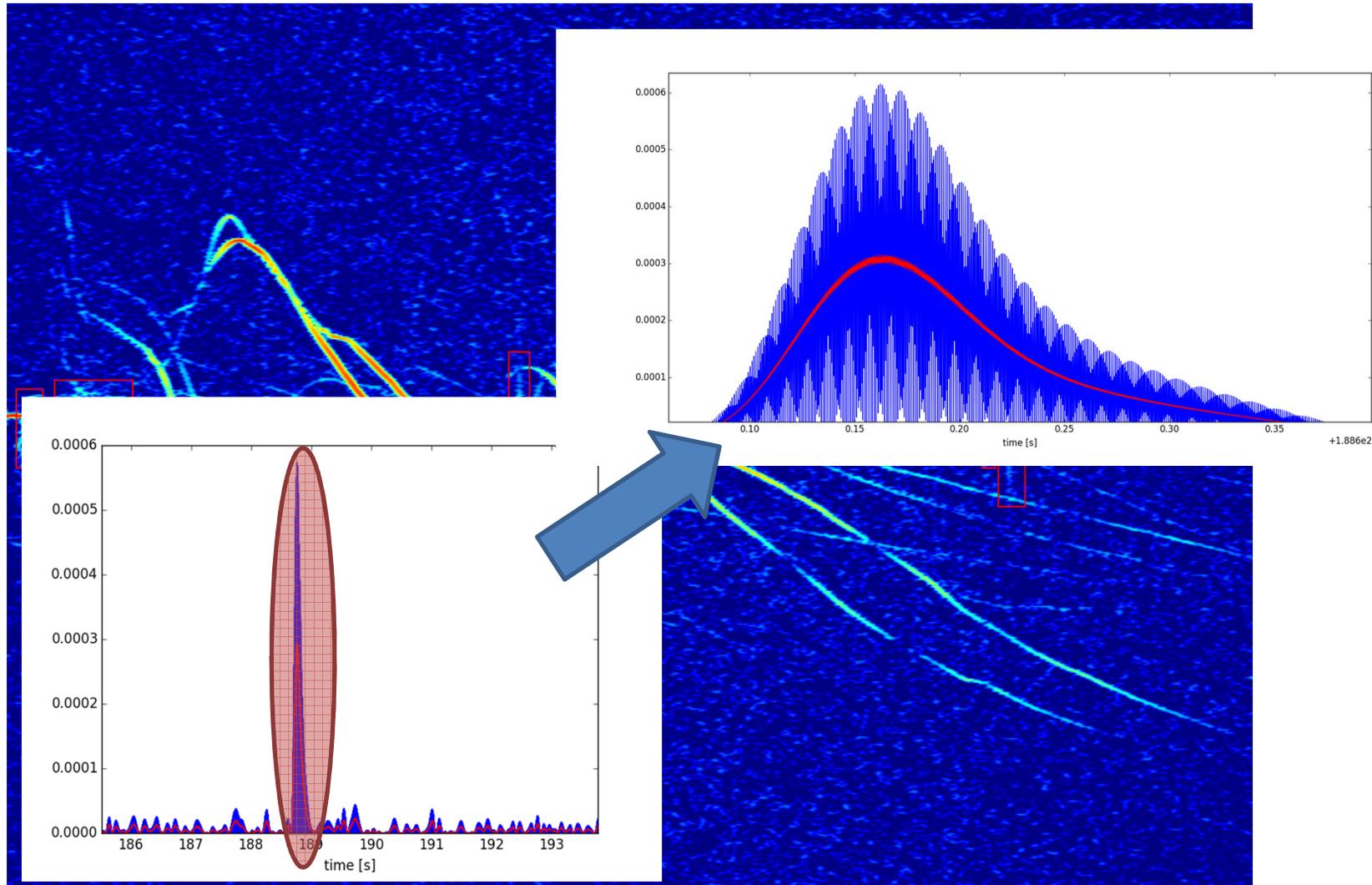
Why do we calculate power profiles?



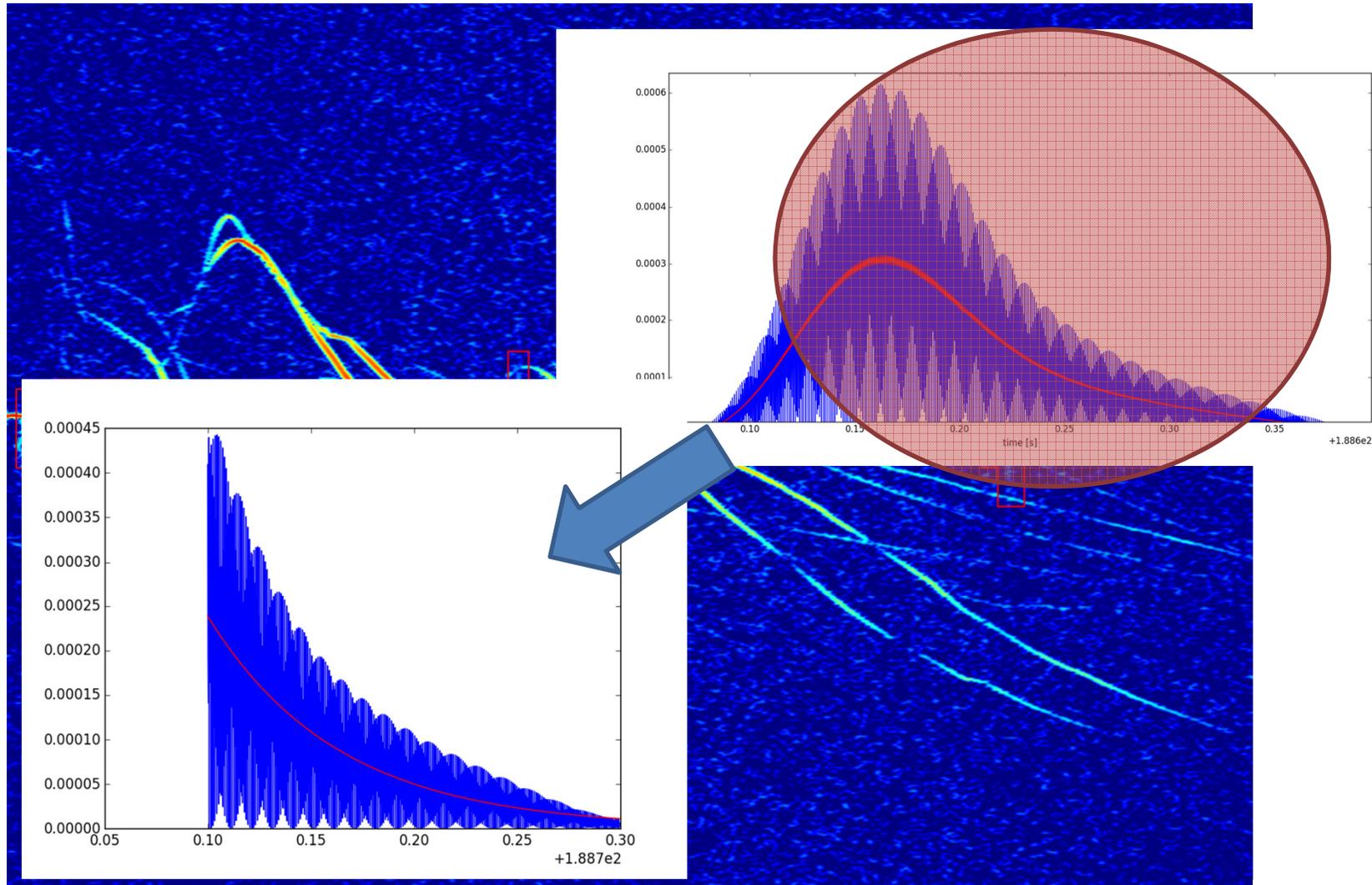
How do we know this?



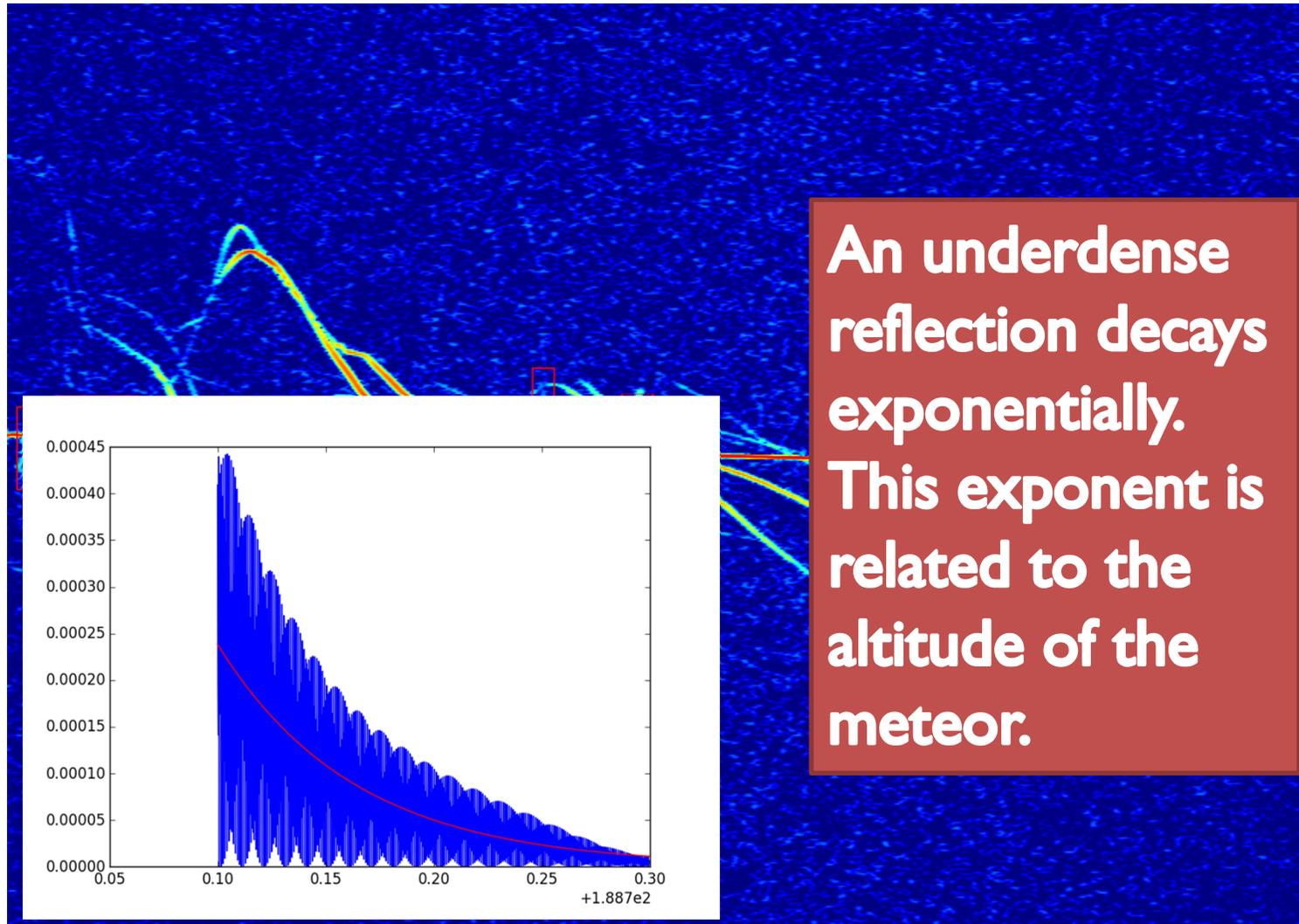
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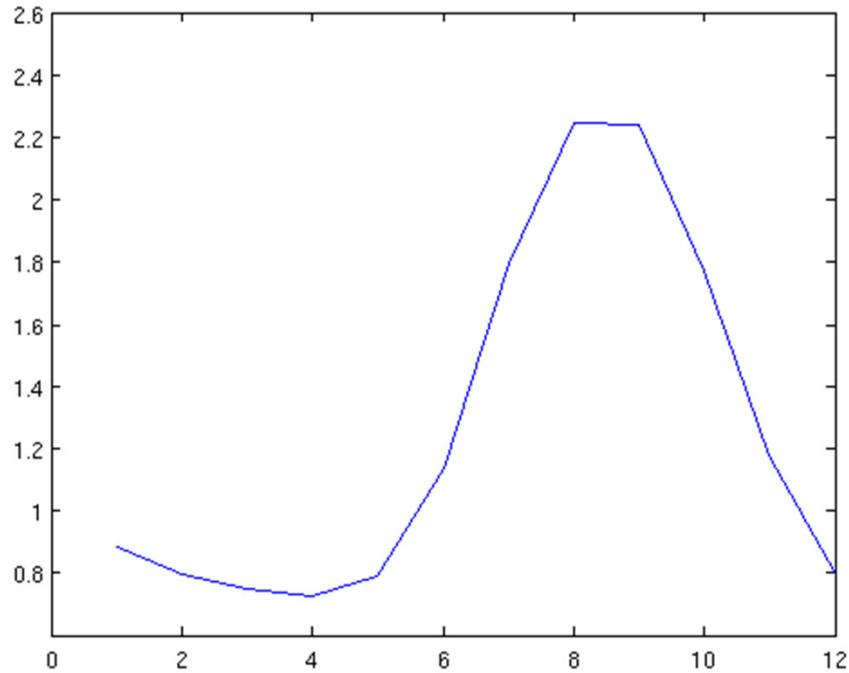


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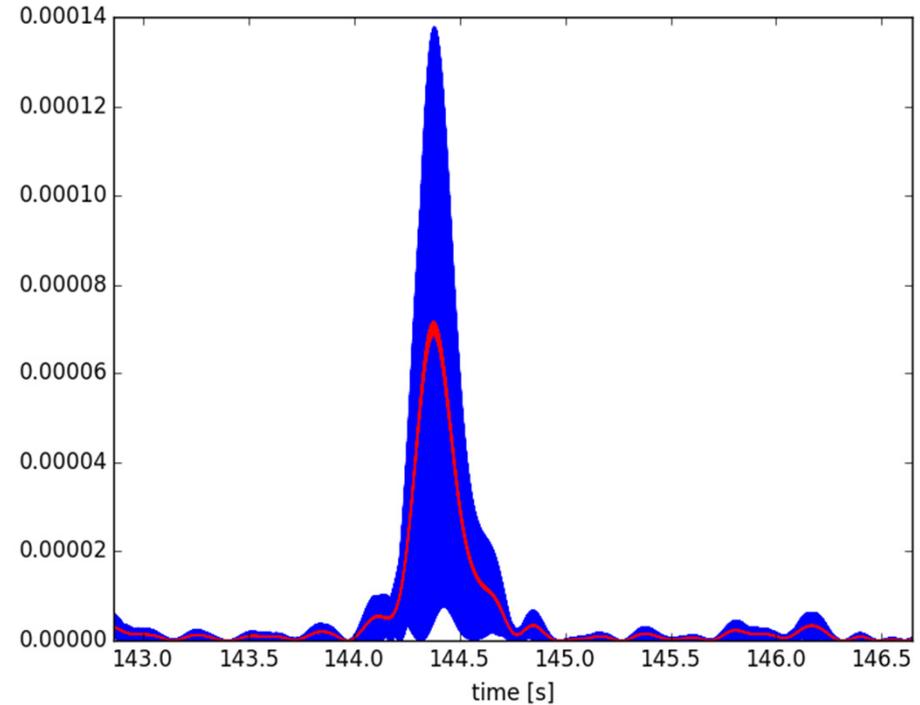


Calculate it always from
the original wave file!

Calculate it from the original wave file!



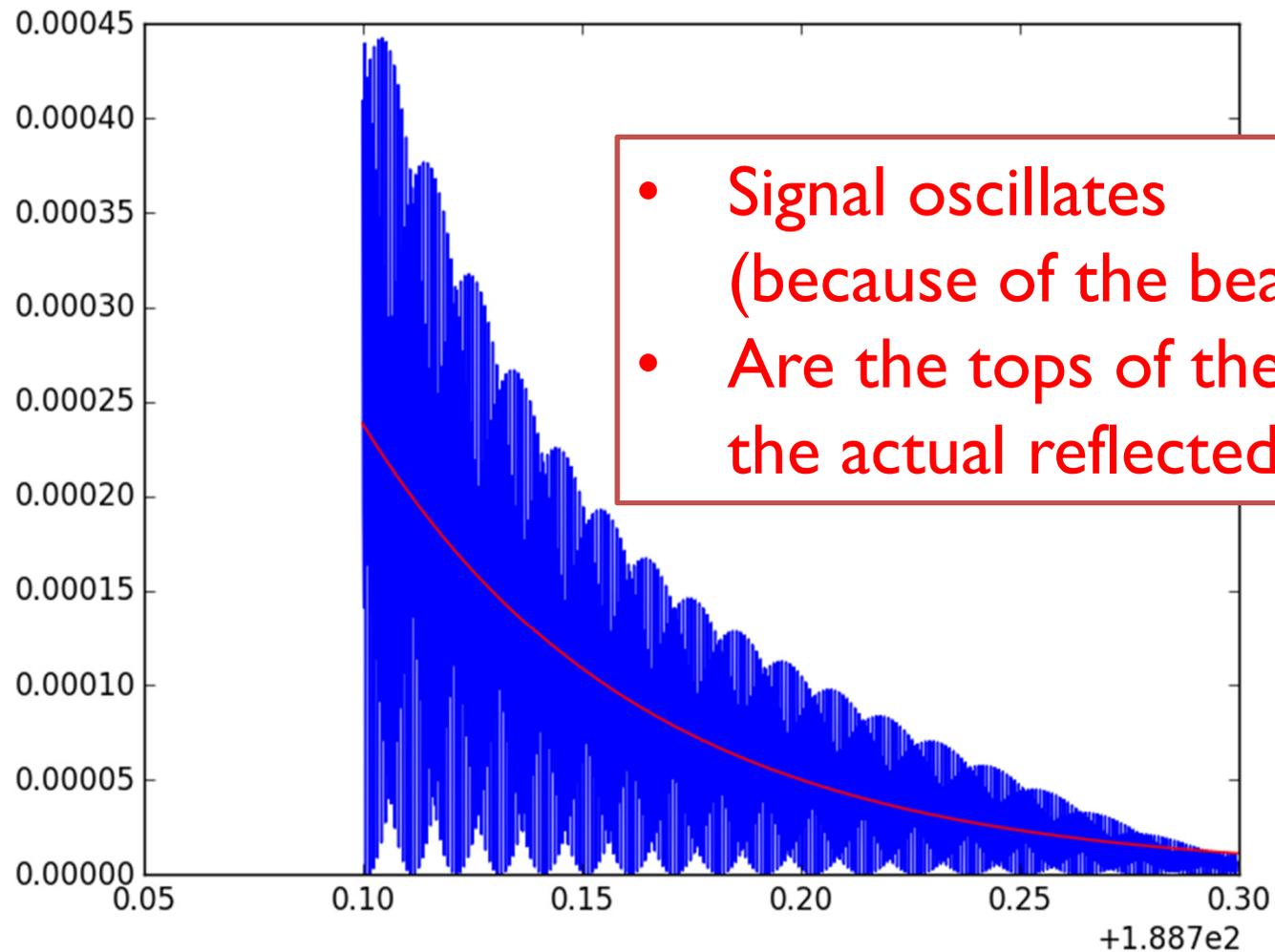
From spectrogram



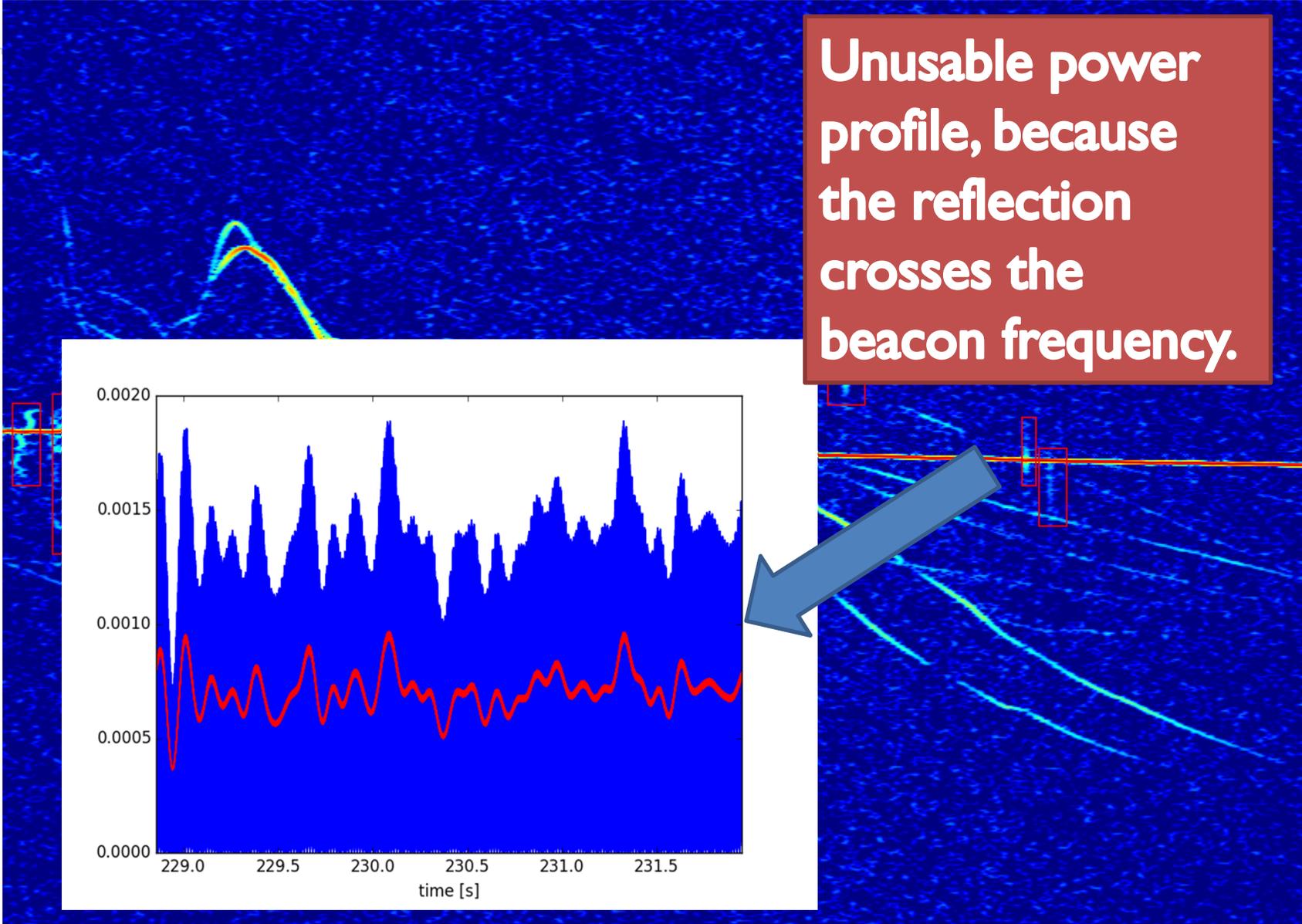
From original wave file

There are still a lot of
open questions!

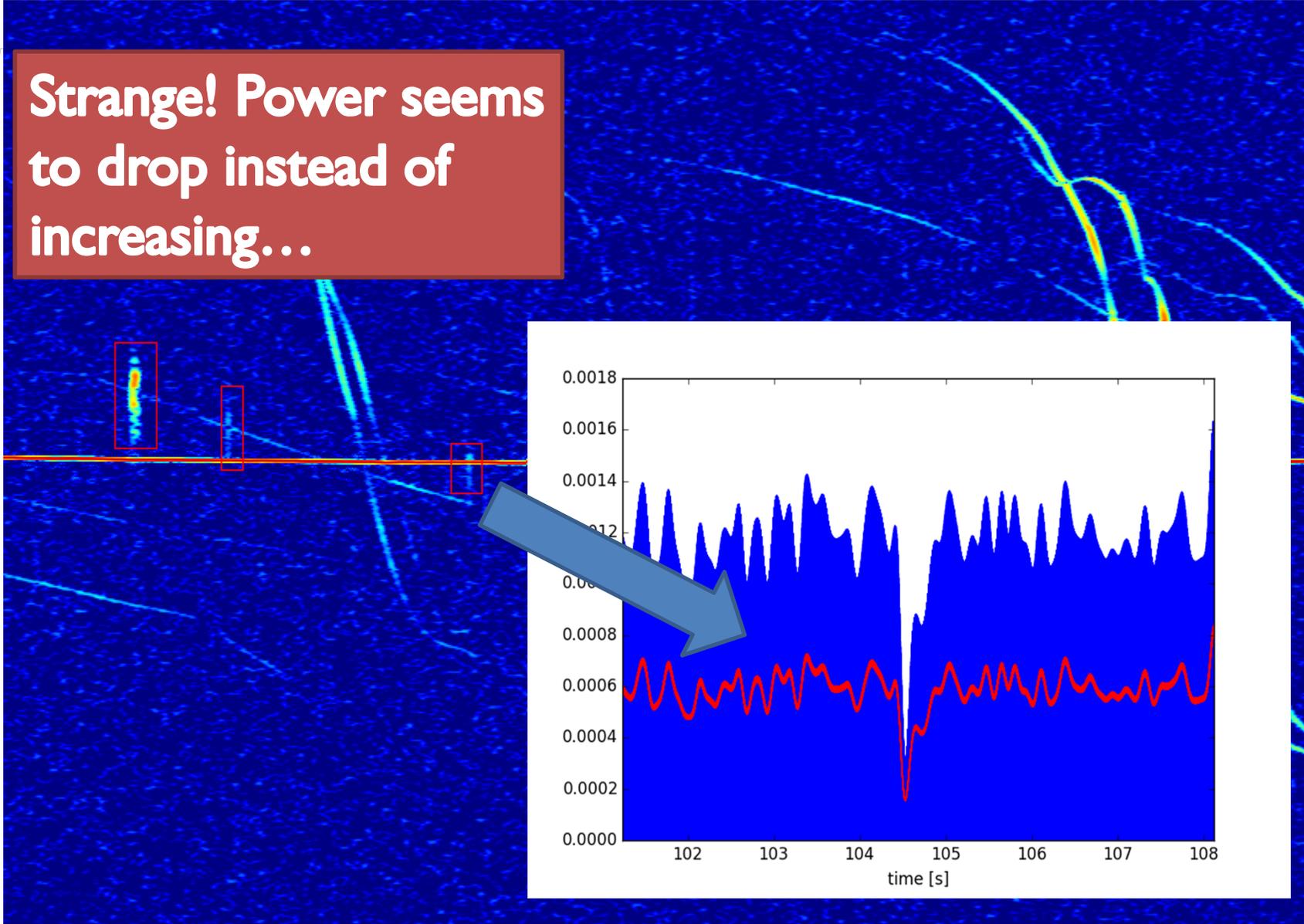
Open questions



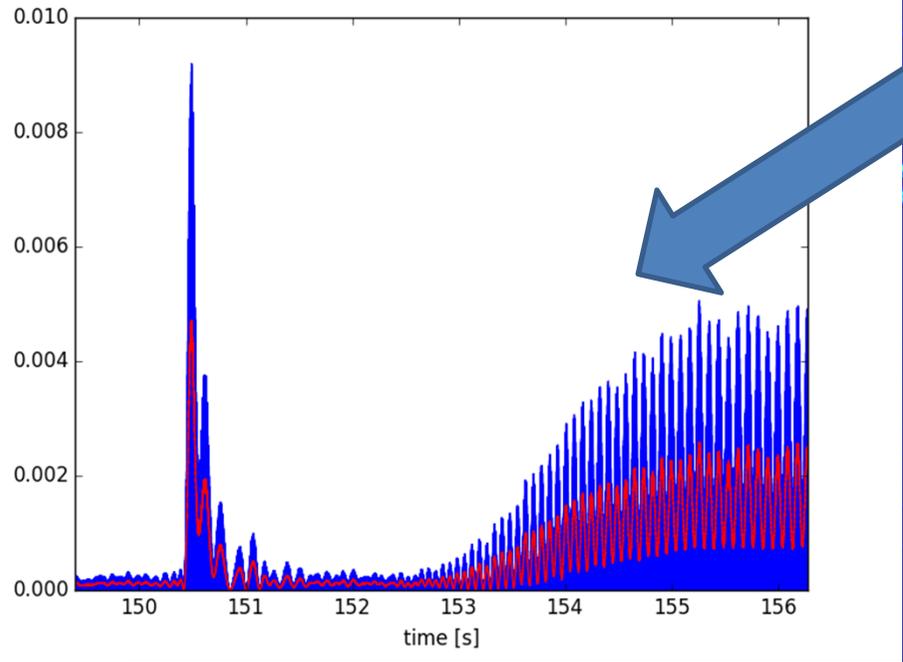
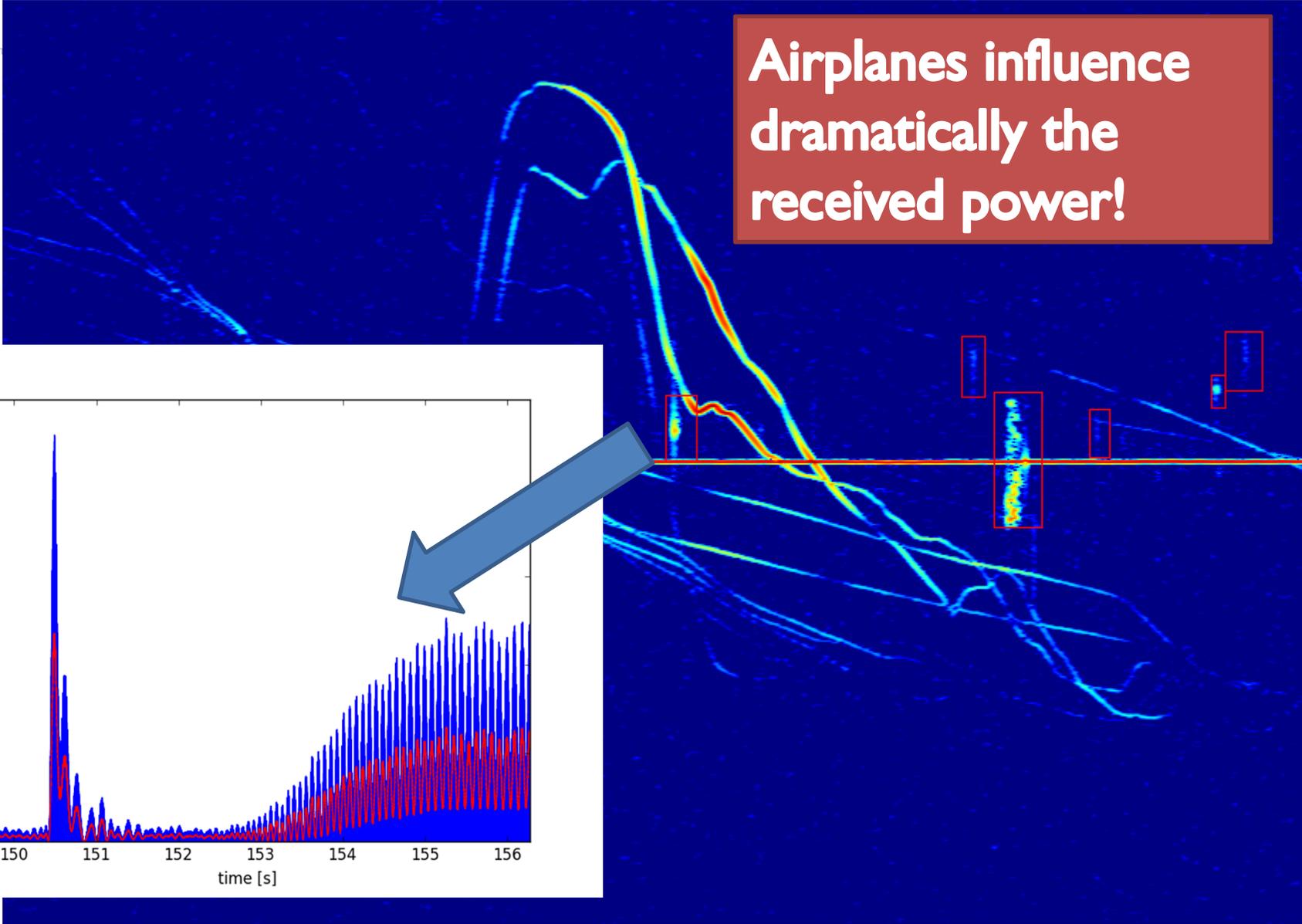
Unusable power profile, because the reflection crosses the beacon frequency.



Strange! Power seems to drop instead of increasing...



Airplanes influence dramatically the received power!



Conclusion

- Power profiles are a basic technique for radio meteor observations.

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- You can **estimate a lot of parameters** from it:
 - Altitude of individual meteors
 - Mass index of sporadic meteors & meteor streams
 - Velocity of the meteoroid (Fresnel oscillations)
 - ...

Conclusion

- Power profiles are a basic technique for radio meteor observations.
- You can estimate a lot of parameters from it:
 - Altitude of individual meteors
 - Mass index of sporadic meteors & meteor streams
 - Velocity of the meteoroid (Fresnel oscillations)
 - ...
- But, like always: we first have to conquer some **challenges...**

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Thank you for your attention!

For more information: www.aeronomie.be