Visual Meteor Workshop 2018

Pezinok, Slovakia, August 29-30, 2018

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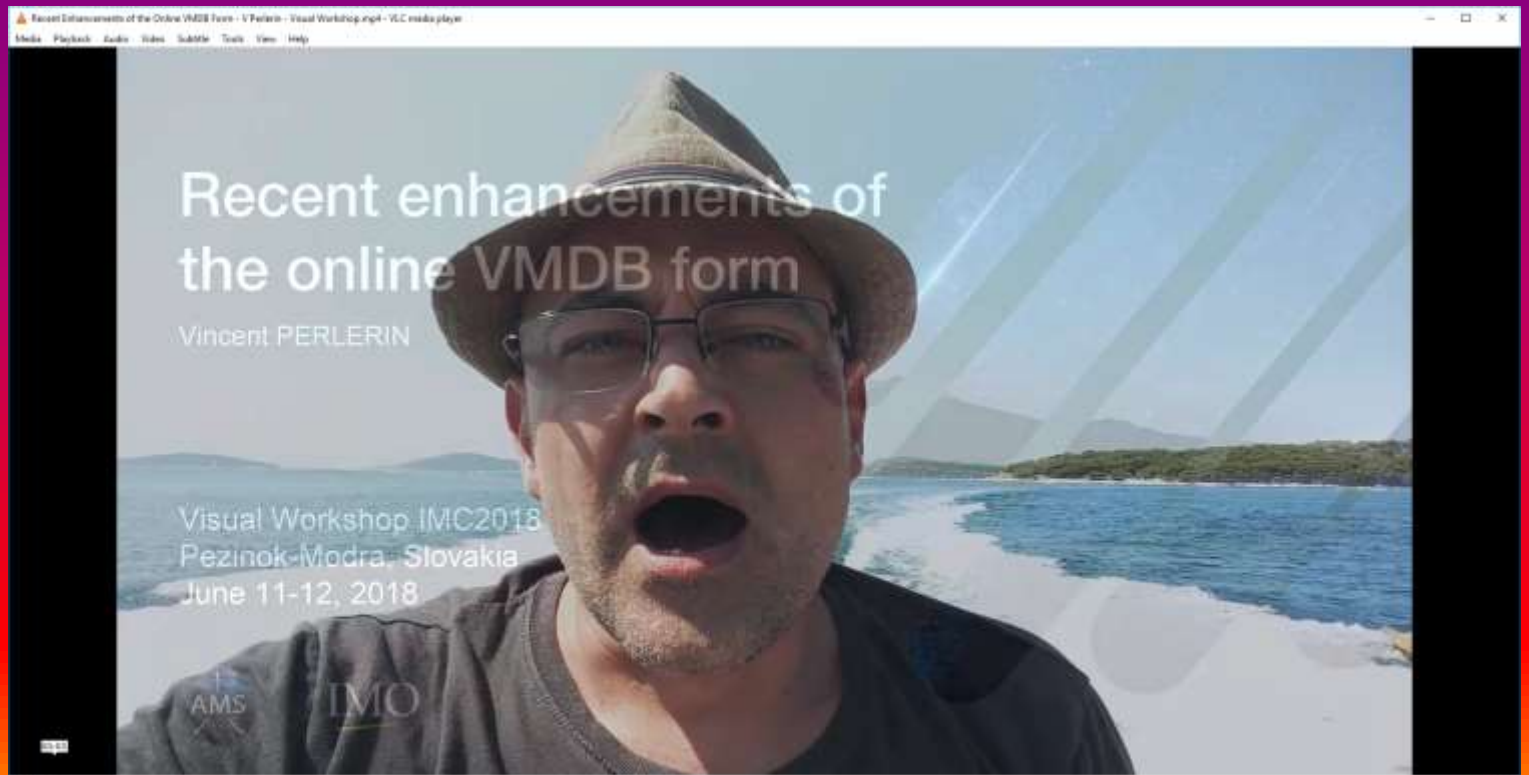
Why a Visual Workshop?

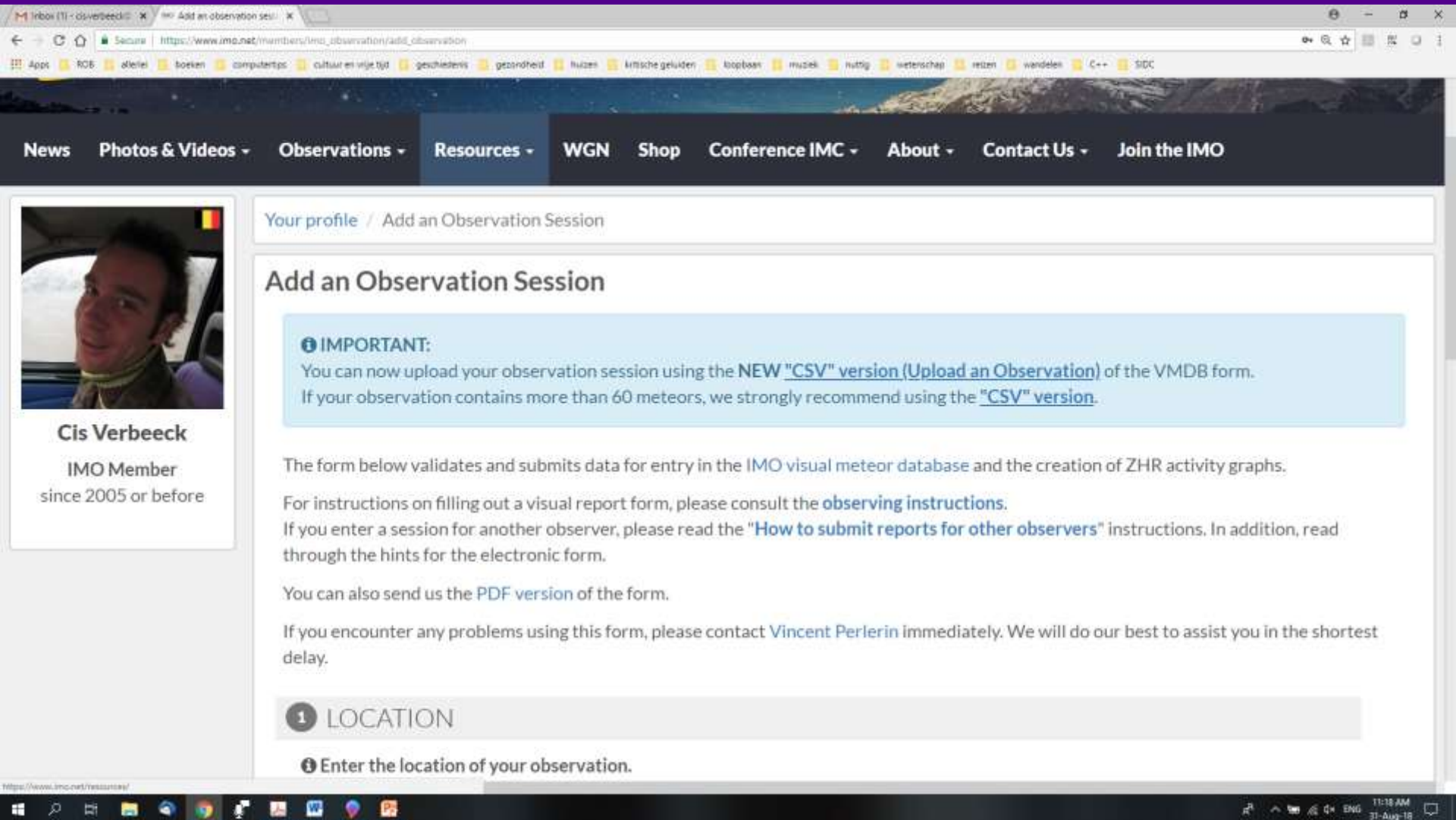
- New Visual Meteor Data Base (*VMDB*) was set up in 2016
- Kristina Veljković developed *MetFns*: user-friendly software to analyze visual observations
- Goals of the Workshop:
  - More persons that can analyze visual observations
  - Optimal knowledge and use of VMDB and MetFns
- Implementation: hands-on analysis of Perseids 2018 as a joint effort of all participants

Great expectations!

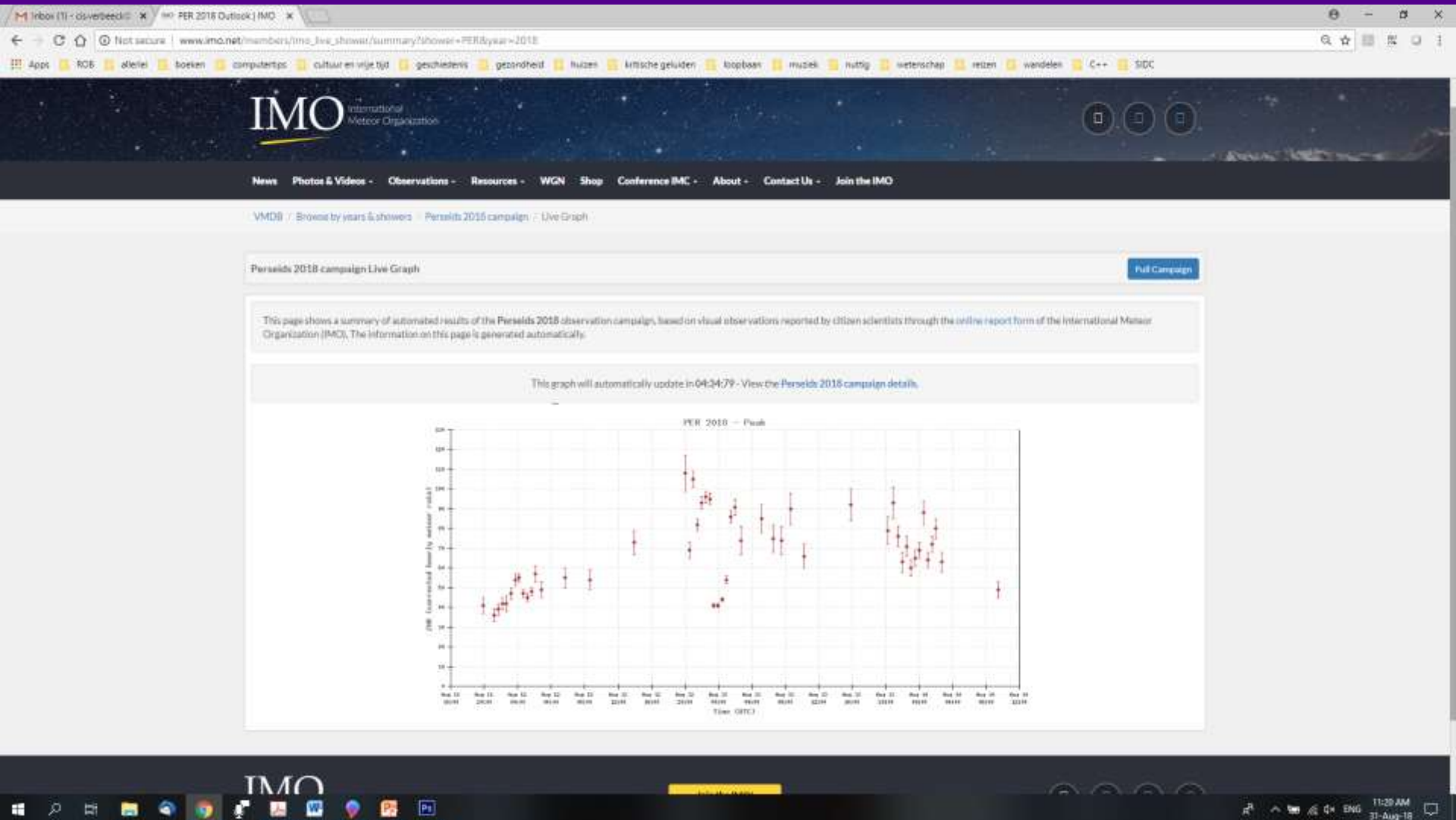
- Number of registrations for the Visual Workshop: **22!**
- Participants to the Visual Workshop: **5…**
- One remote contributor



Recent enhancements of the online visual form



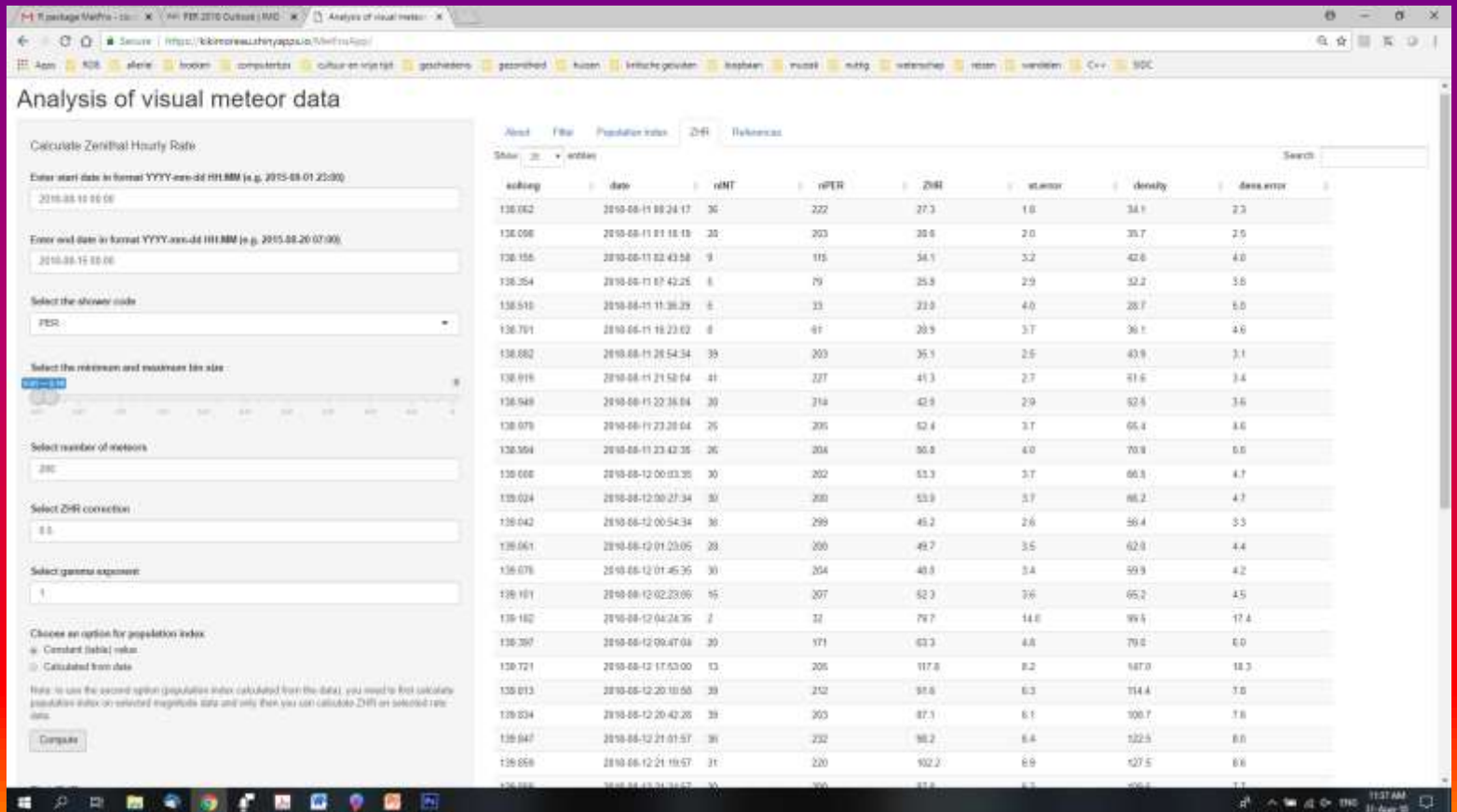
Live ZHRs on the IMO website



MetFns: software for analysis of visual observations

Online app: https://kikimoreau.shinyapps.io/MetFnsApp/

R package: https://cran.r-project.org/web/packages/MetFns/index.html



Playing with data: Perseids 2018

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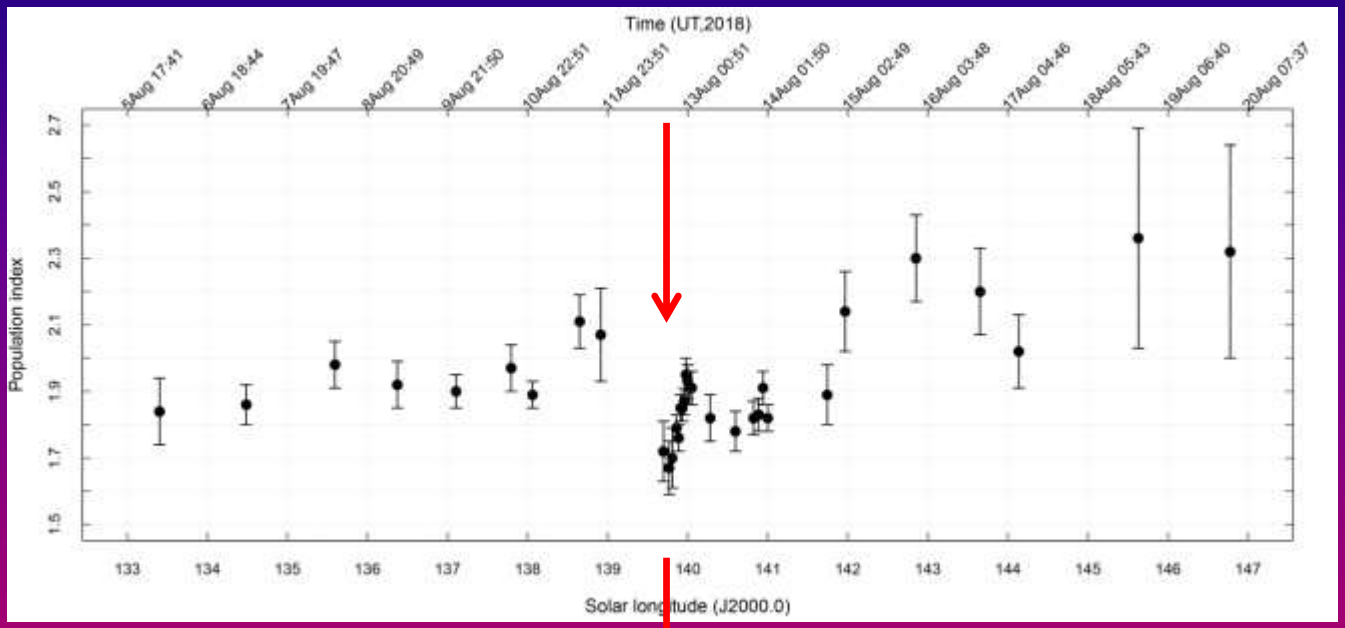
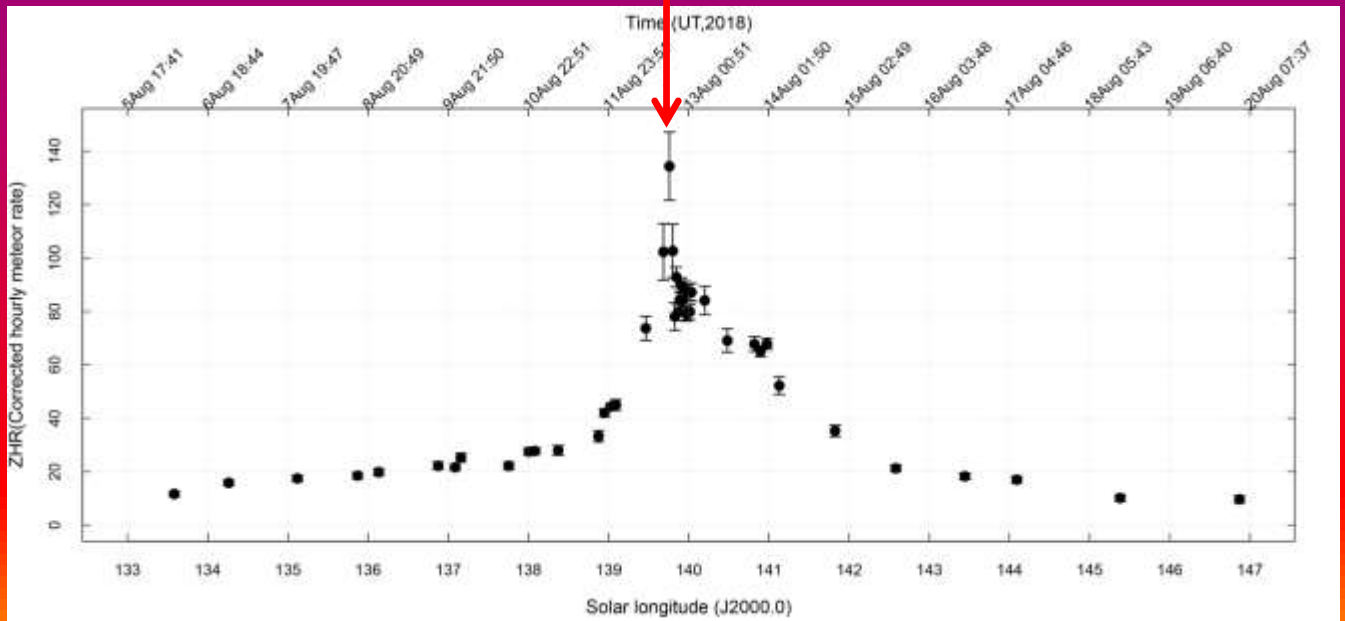
- Shower analysis routines in MetFns
- Optimal bin size algorithm
- Effect of poor vs. good observing conditions

Results Perseids 2018



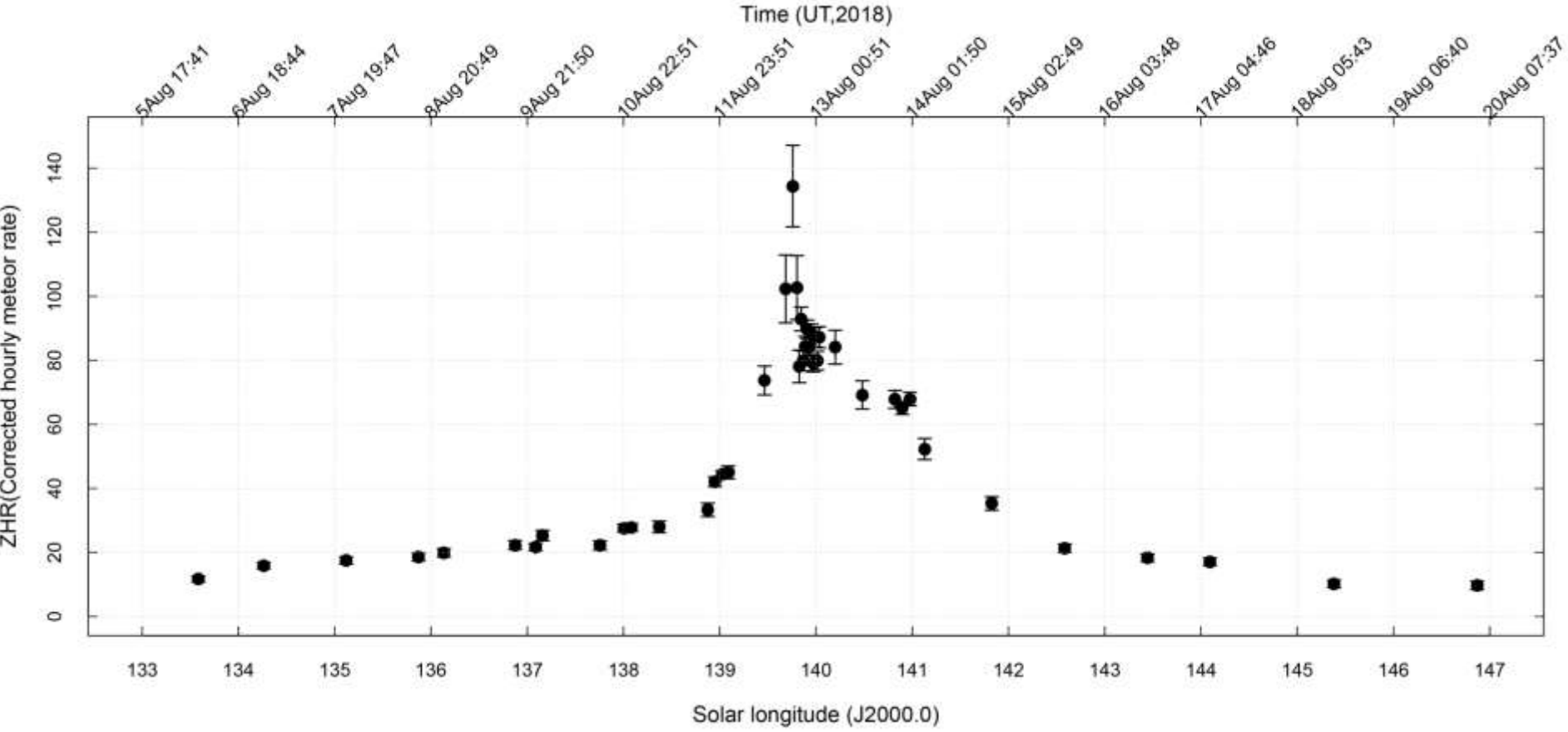
Population index r

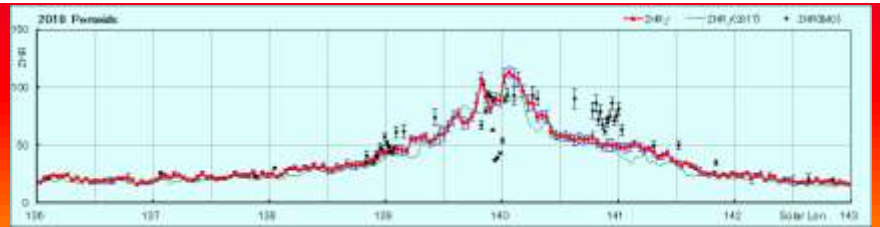


ZHR

Comparison to radio data

ZHR (Visual Workshop)



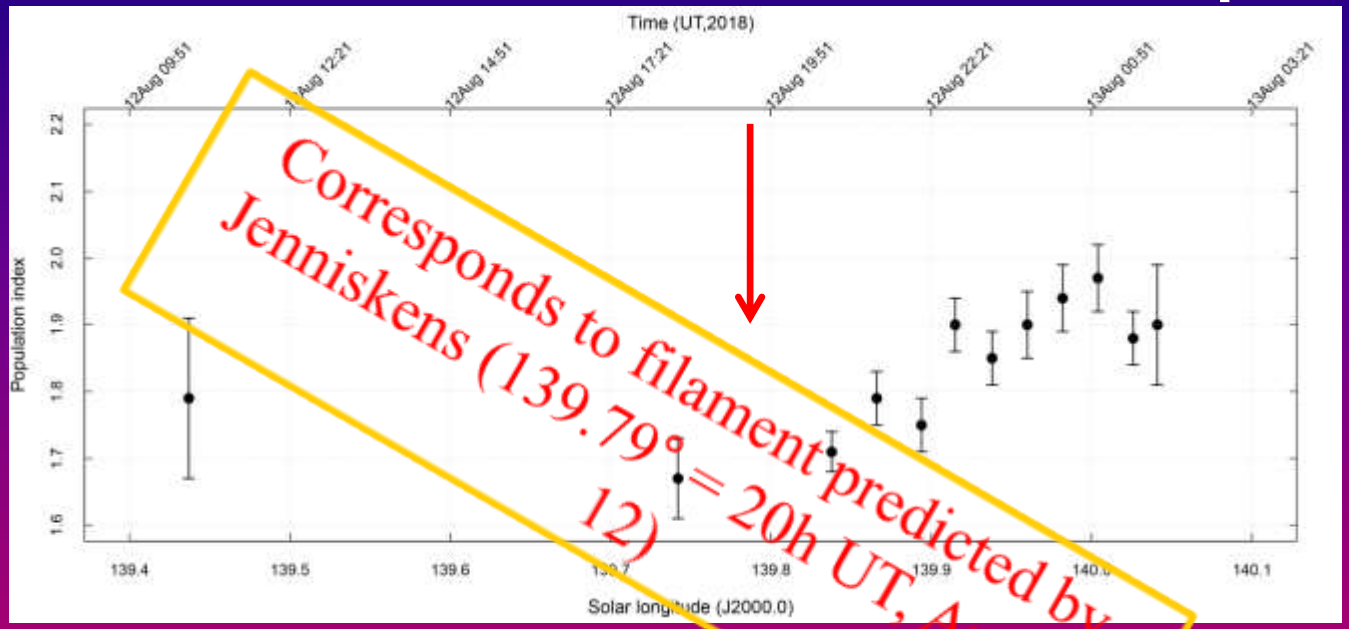


Radio ZHR_r
(Shugimoto)

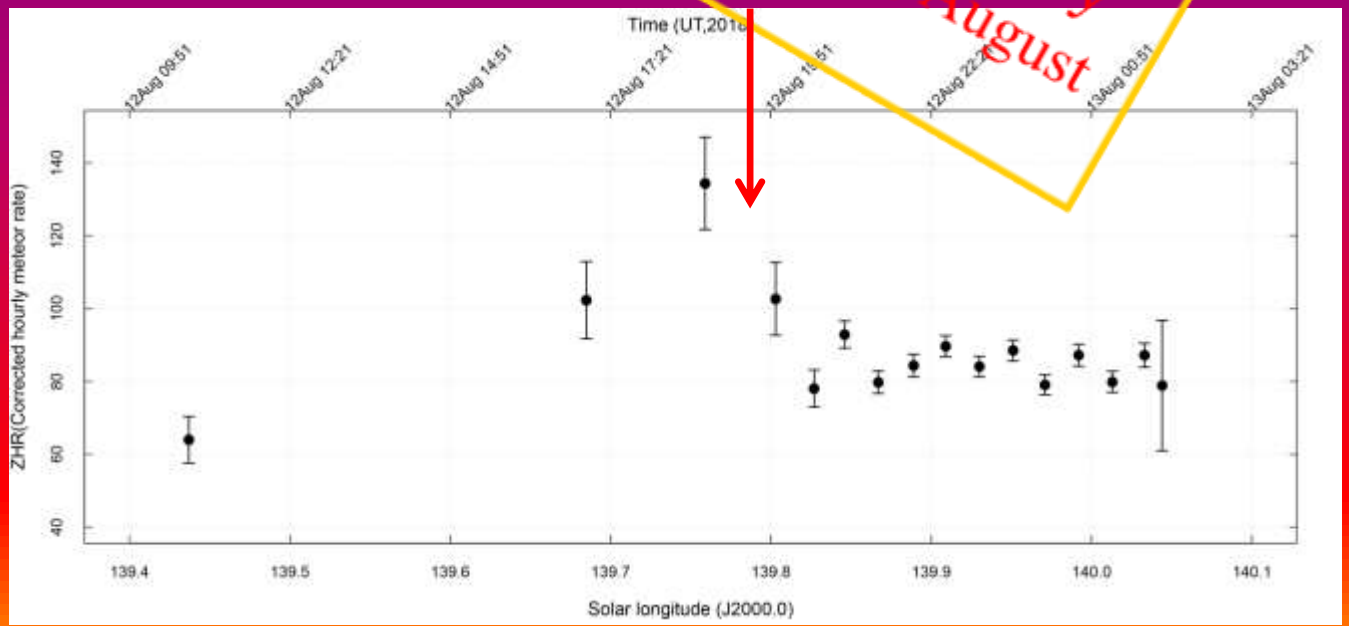
Results Perseids 2018: peak

Pop. index r

ZHR



Corresponds to filament predicted by Jenniskens (139.79° = 20h UT, August 12)



Workshop outcome

- 2 papers will be written:
  - WGN paper with results on Perseids 2018
  - IMC Proceedings paper describing how we derived these results, using MetFns
  - ➢ Publication rate: 2 / 5 = 0.4 papers * person^{-1} * day^{-1} ☺