

# Continuous observations of high amplitude signals by the TDS receiver

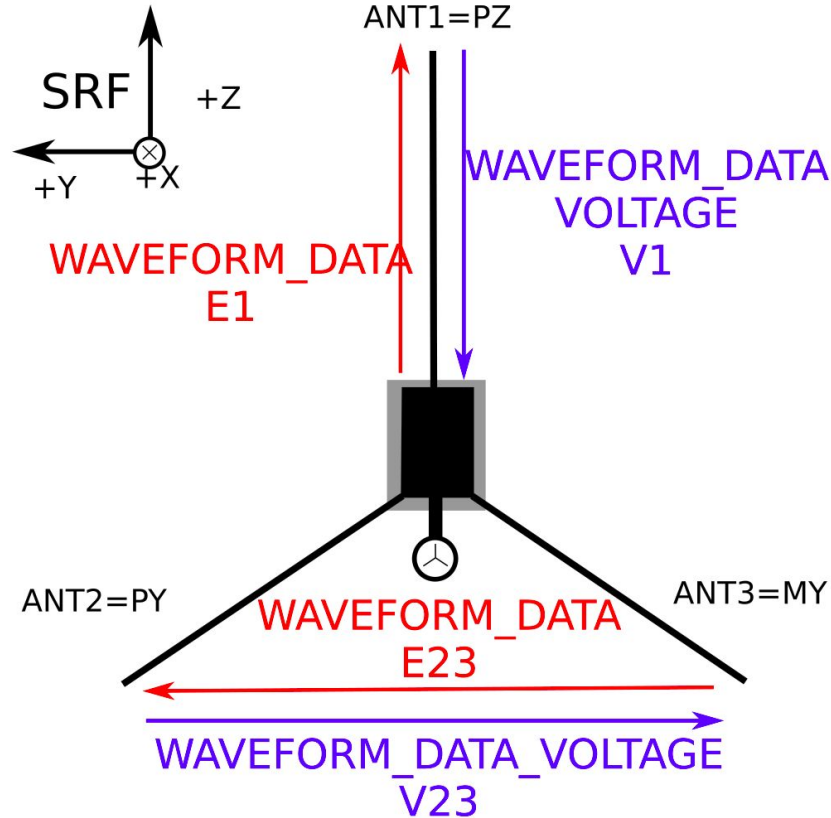
David Pisa & TDS team



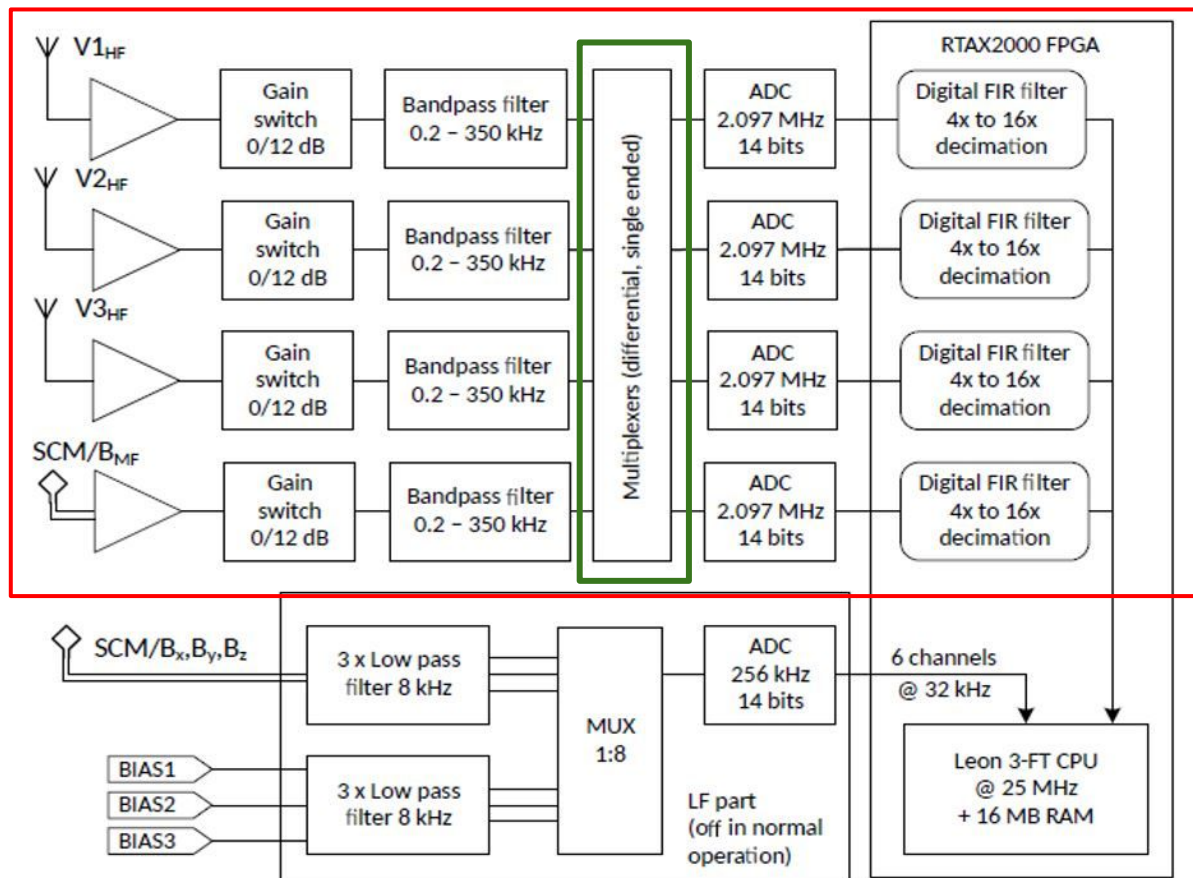
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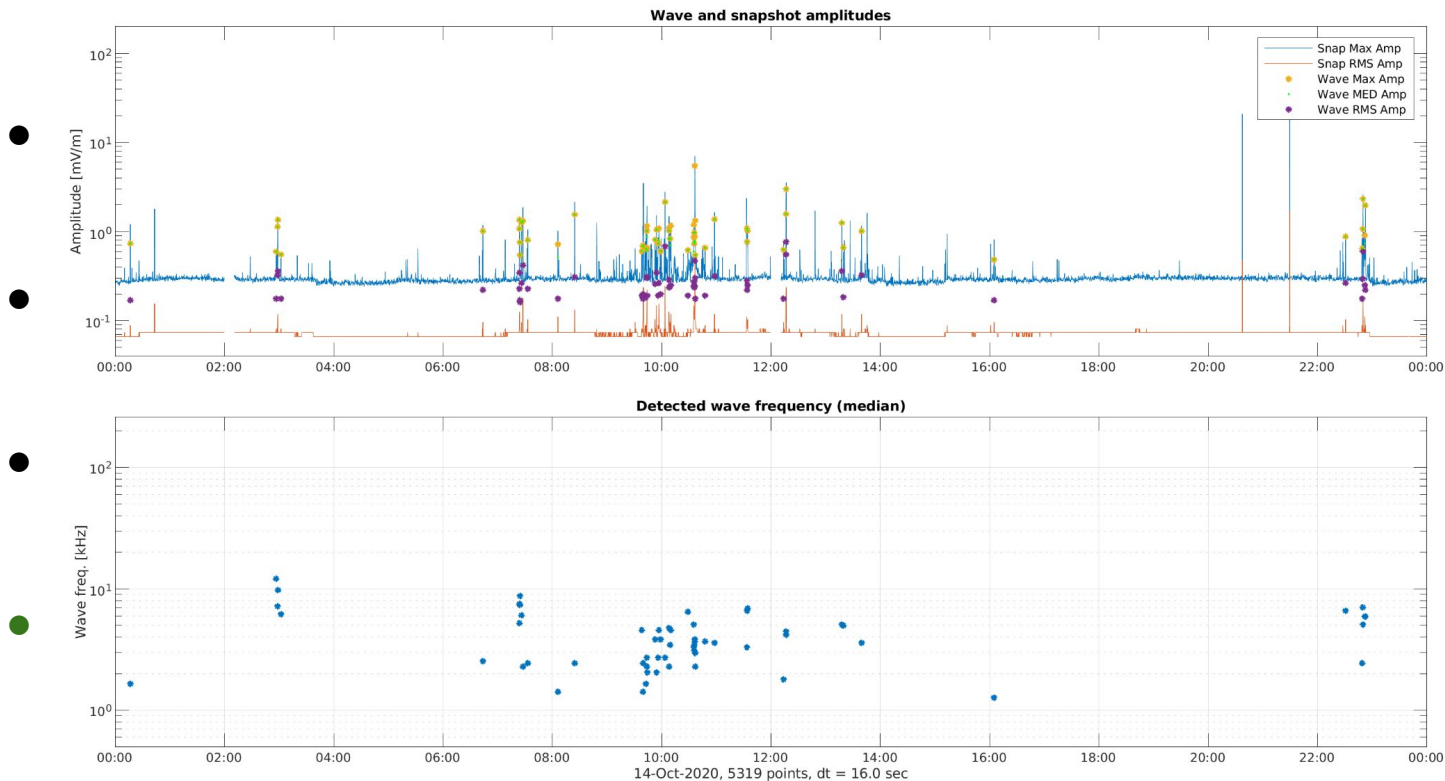
# RPW - Time Domain Sampler - signals



# RPW - Time Domain Sampler - inside

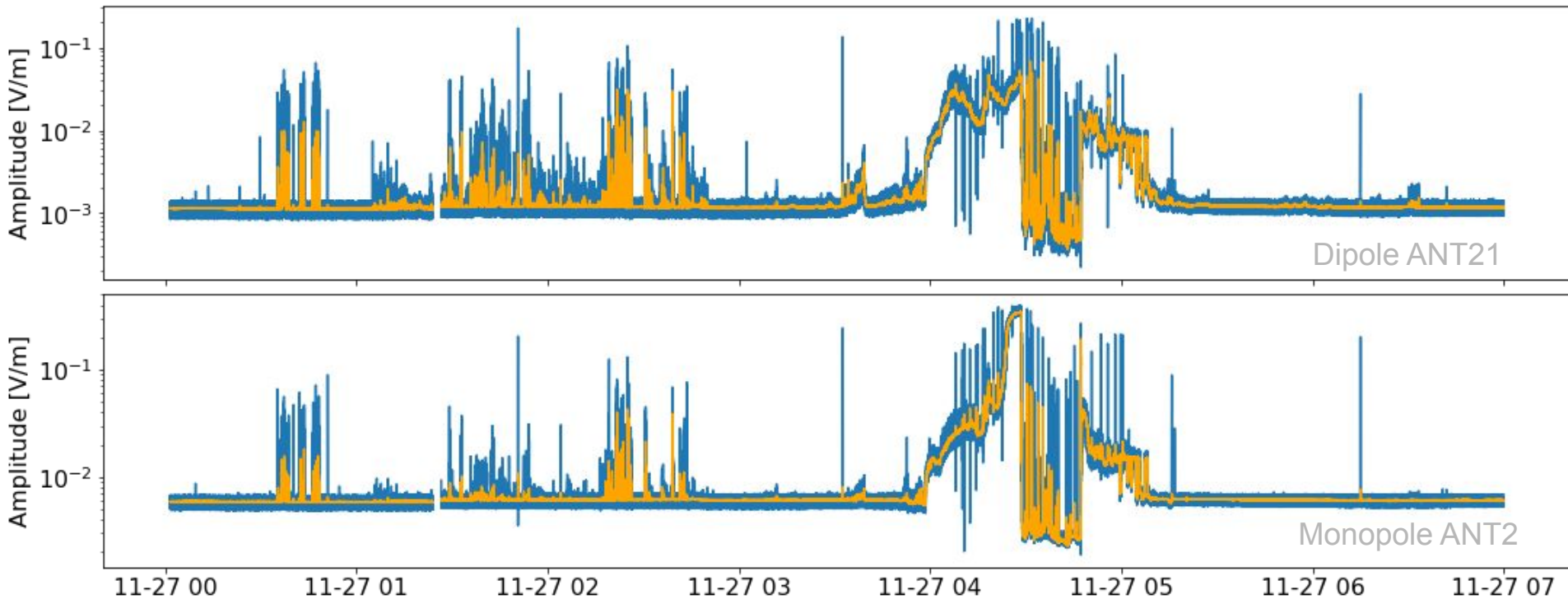


# TDS Data products



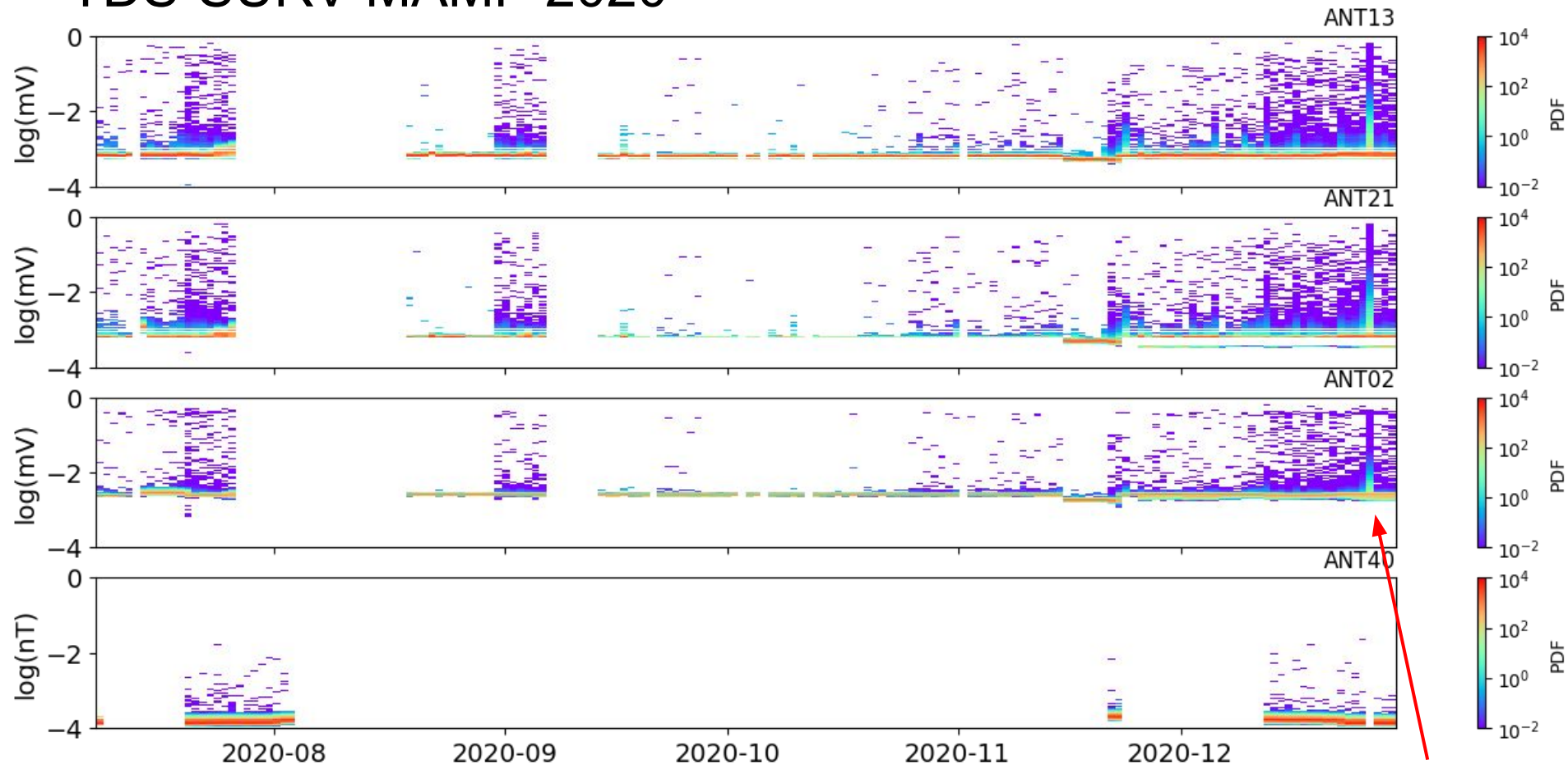
# TDS-SURV-MAMP example - Earth flyby

SoIO RPW-TDS-MAMP - 2021/10/09

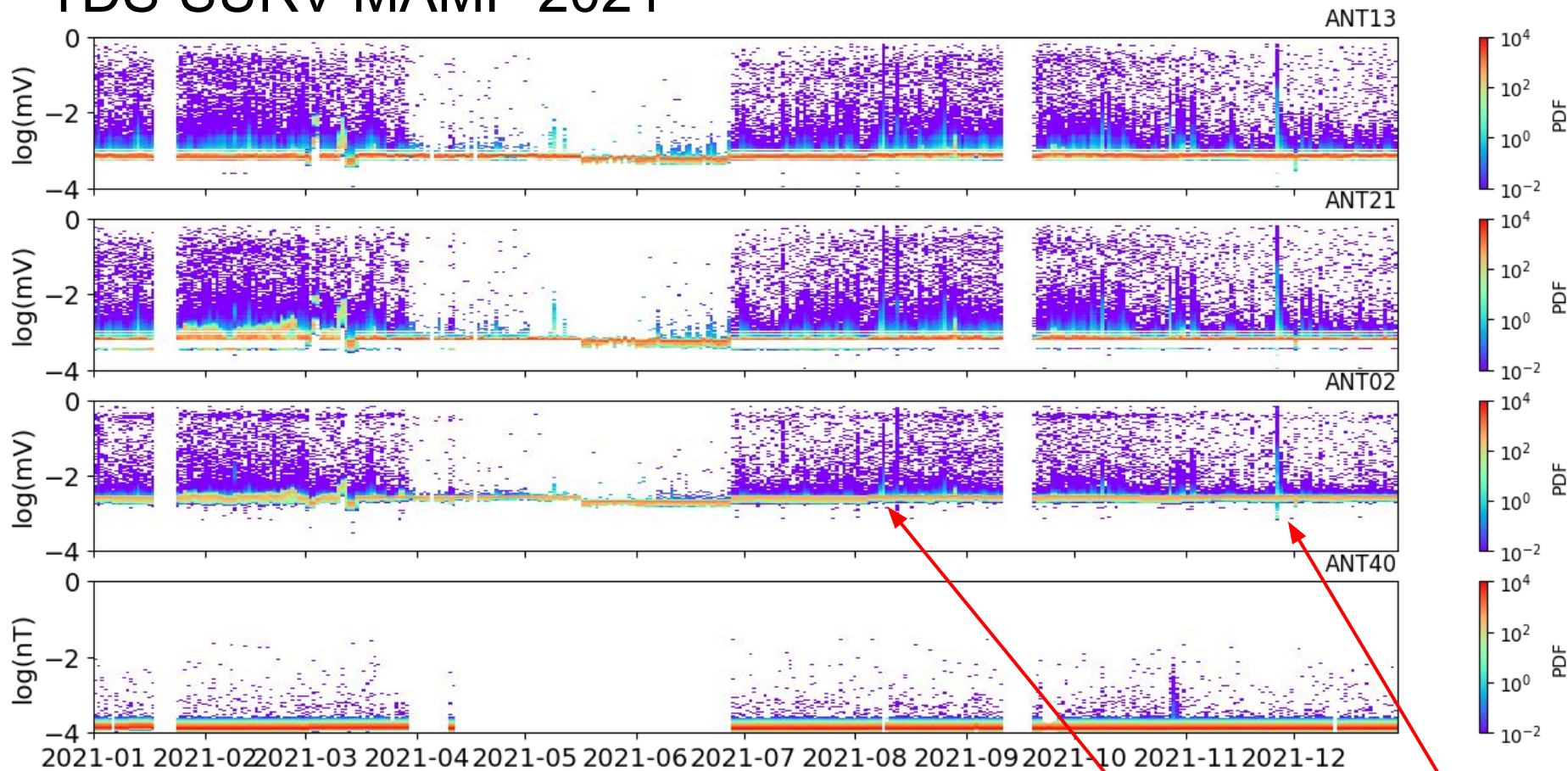


Frequency band 0.2 - 350 kHz

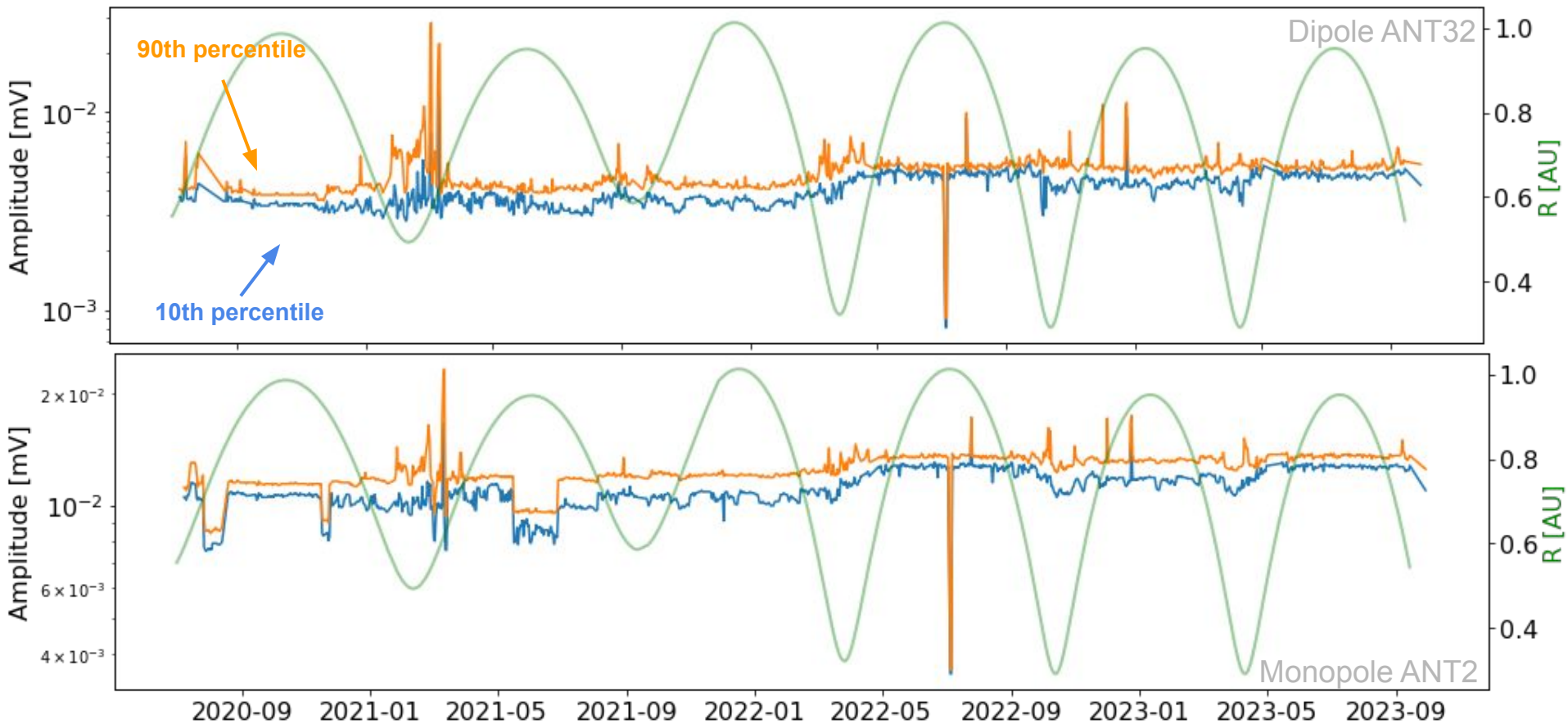
# TDS-SURV-MAMP 2020



# TDS-SURV-MAMP 2021



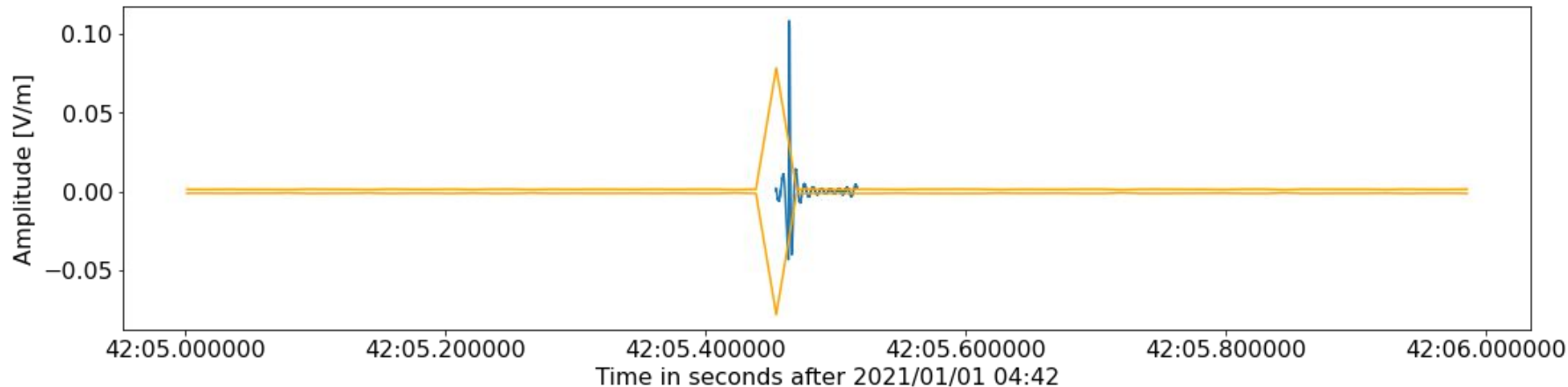
# MAMP activity Jul 2020 - Sep 2023



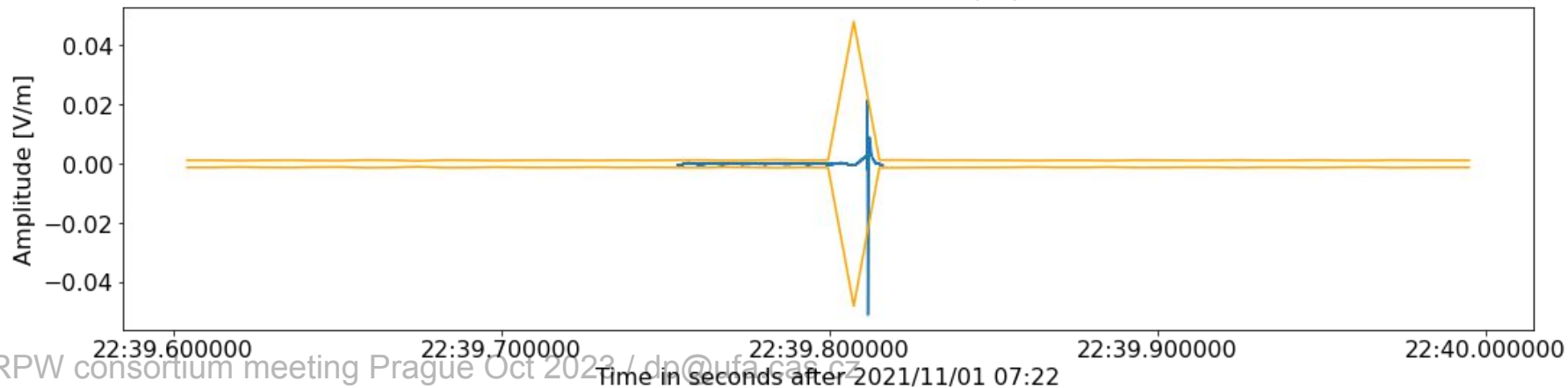


# DUST IMPACTS / MAMP vs. TSWF

Solo RPW MAMP & TSWF - 2021/01/01

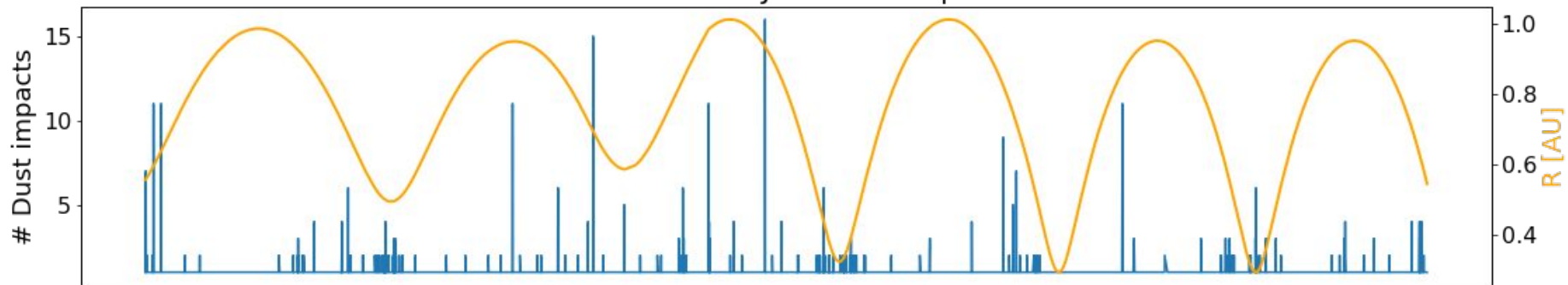


Solo RPW MAMP & TSWF - 2021/11/01

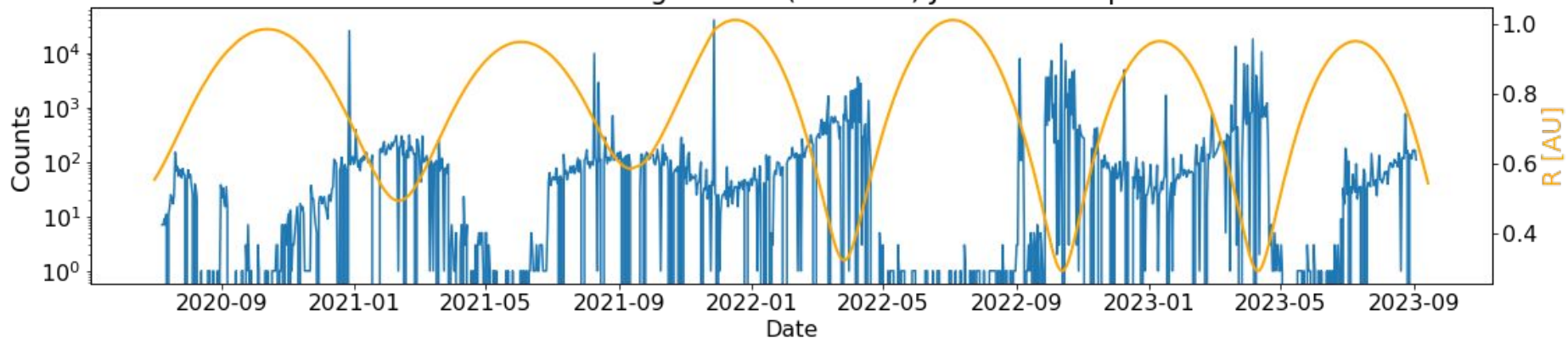


# DUST IMPACTS / MAMP vs. STAT

TDS-SURV-STAT Jul 2020 - Sep 2023

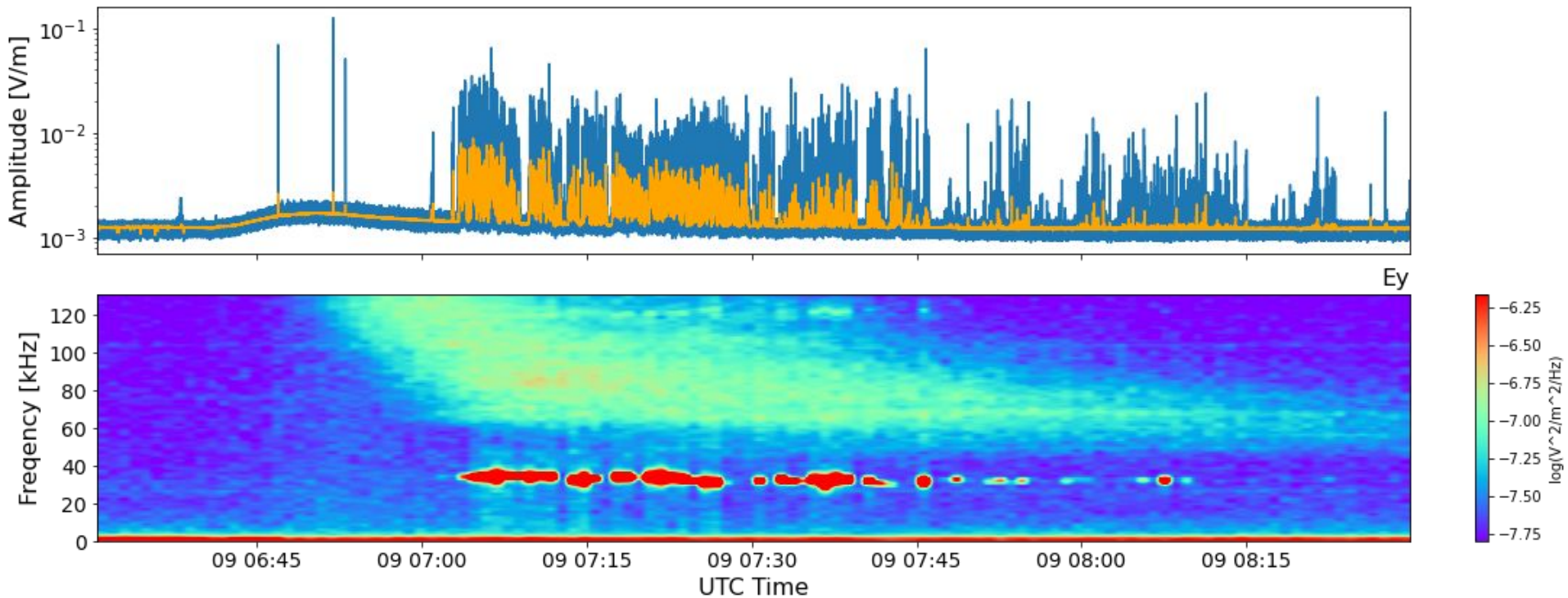


TDS-SURV-MAMP High-Peaks (>30 mV) Jul 2020 - Sep 2023



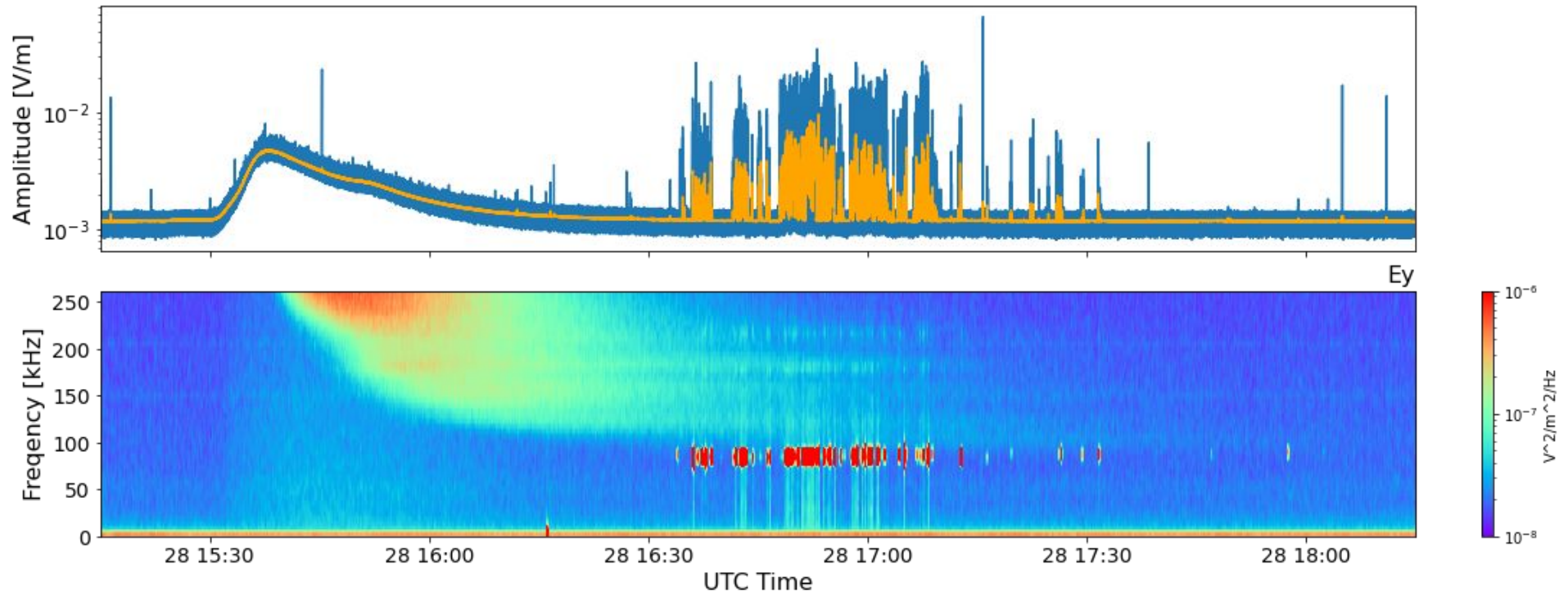
# MAMP vs. RSWF in-situ Type III

Solo RPW MAMP & RSWF - 2021/10/09

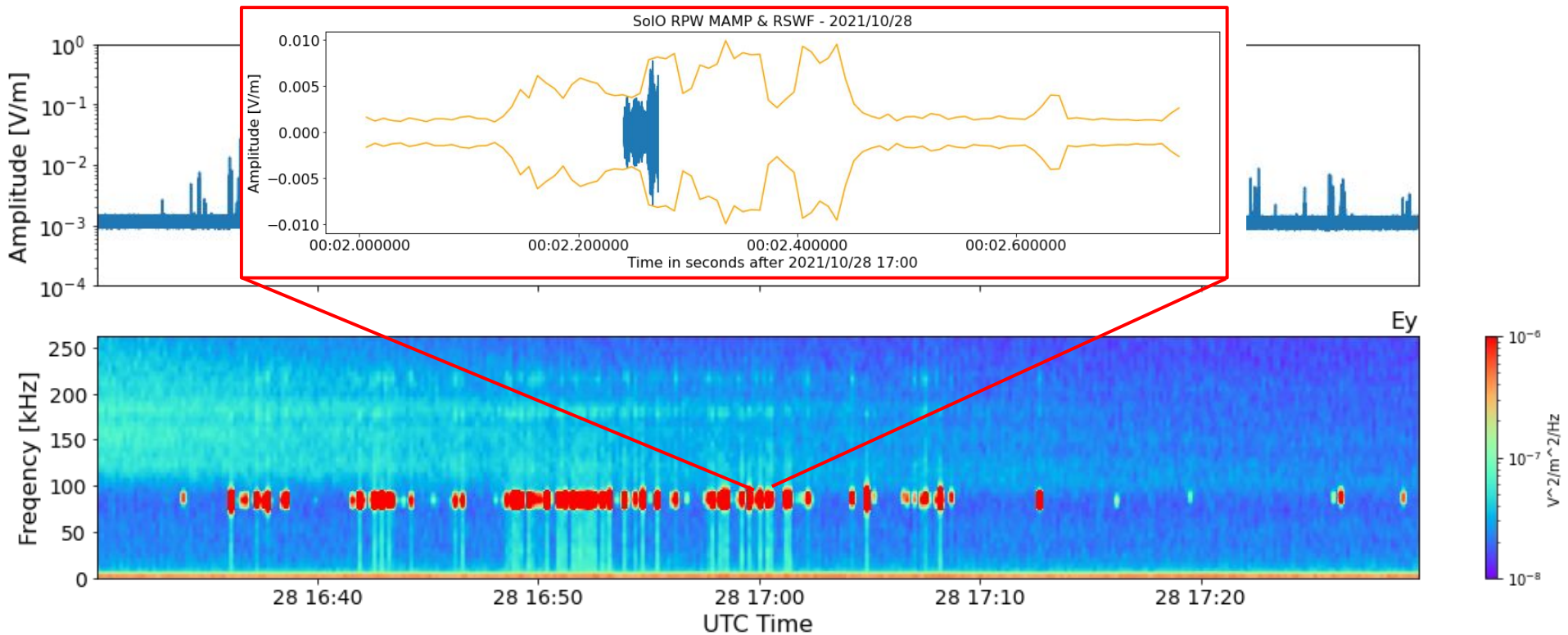


# MAMP vs RSWF in-situ Type III

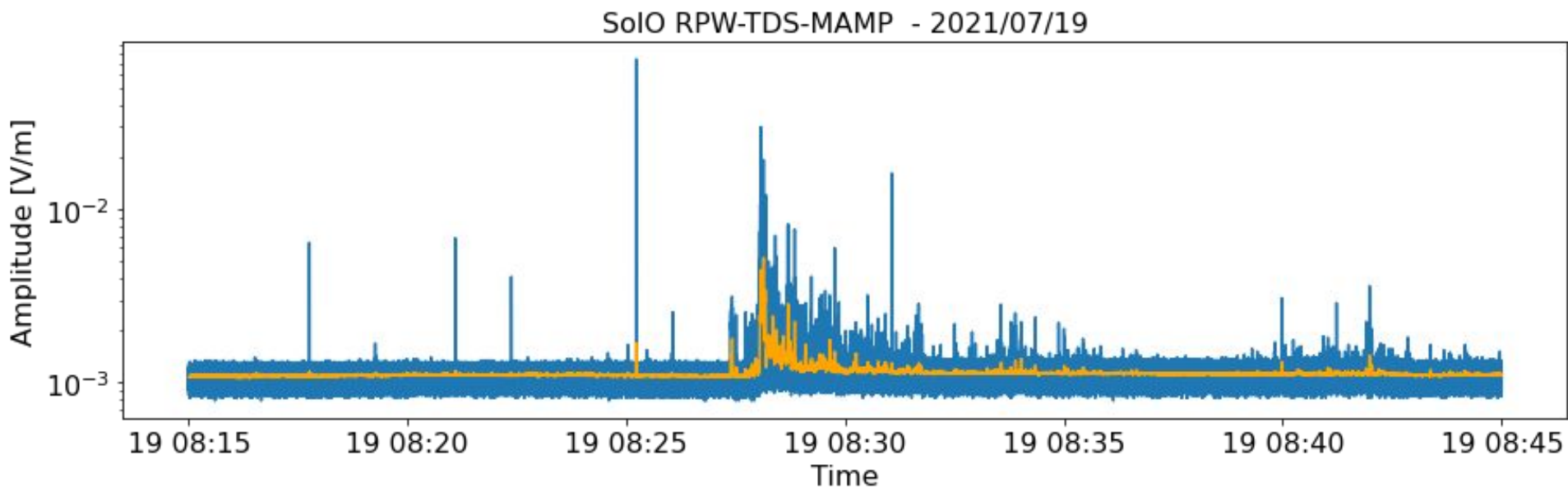
SoIO RPW MAMP & RSWF - 2021/10/09



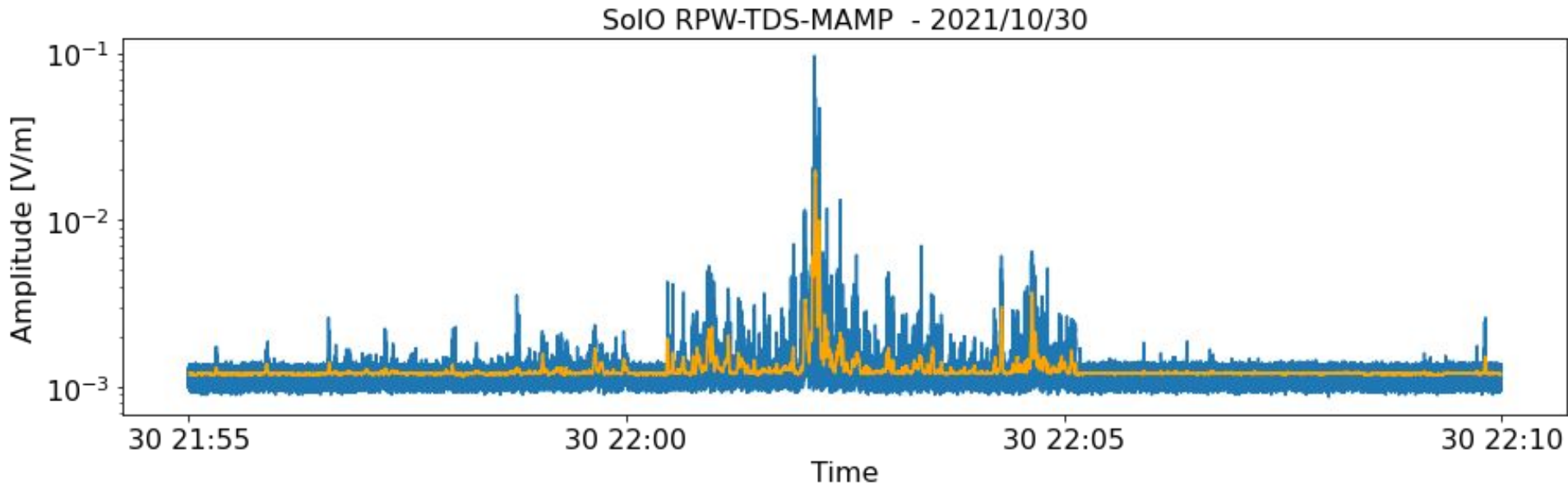
# TDS-SURV-MAMP vs Langmuir waves



# TDS-SURV-MAMP vs IP Shocks



# TDS-SURV-MAMP vs IP Shocks



# Conclusions

- TDS measures max. absolute amplitudes with high cadence (32-128 Hz)
- MAMP can monitor
  - Wave activity - e.g. Langmuir wave envelopes, type III (<350 kHz)
  - Dust impacts
  - Region crossings - IP & planetary shocks
  - Activity at the HF SCM



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