

# Solar Indices Team

- Joint Meeting with Ionosphere Teams:
  - Tobiska: Operational uses of proxies and indices
    - Indices and operational atmosphere models using them
    - Validation efforts and performance metrics for models
  - Eparvier, Snow, Thiemann: GOES-16 EXIS Measurements and Data Products
    - The measurements we'll have for the next 20+ years

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- Discussions:
  - Differences between measurements, proxies, and indices. (ISO 21348:2007 has definition of proxy and index)
  - Indices need to be stable for operational use, but sometimes they then don't work as well as they could or don't represent what the Sun is really doing
    - Need two datasets? “Historically stable index” plus “closest to reality” measurement
    - Possibly a “Quality Flag” that tells you that using the index at a particular time is not a good idea (e.g. F10.7 in at solar min not good for representing EUV)

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- Recommendations:
  - Use version numbers!
  - Follow ISO standards!
  - Equivalent indices or proxies?
    - i.e. a better index/proxy that can be used in the models without changing the models but increase their performance
    - E.g. ensemble index

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- Plans for rest of workshop:
  - Formulate plans for validation of solar indices and the solar irradiance they represent
  - Select time periods and indices/proxies/measurements needed for validation effort
  - Select metrics of validations
    - Which indices best represent the type of solar conditions that different atmospheric models need?
    - How well do the indices/proxies and the irradiance models represent “reality”
    - How do we report the results to the atmospheric community?