Discussion on perspectives for ionospheric diagnostics

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# Diagnostics

RAW GPS data-> Structure function

- Unusual events in satellite data-> compare to LOFAR

- Use LOFAR beamlet calibrator data (LBA) define figure of merit.
  – beamlet analysis + FOM from calibration parameters

- Use the autocorrelation data to investigate scintillation physics

- Use Ionospheric Dispatch Centre in Europe (IDCE) catalog for diagnostics
  – compare good/bad data
- High res LOFAR data for GPS modeling

- Prediction: Use scintillation data to predict "bad" nights

# Others

**Calibration:**

- Use high resolution TEC for calibration/phase screens

- High resolution correction of ionospheric RM

**Modeling:**

Gain knowledge in modeling from ionospheric physicist community