

## Data Model

- Observables

- Dopplergram
- Magnetogram
- Intensity
- Spectrum
- Other (Particle flux, tables, etc)

MDI	NSO	MSU
<ul style="list-style-type: none"> <li>– Dopplergram</li> <li>– Magnetogram</li> <li>– Continuum Intensity</li> <li>– <math>I_\lambda</math></li> <li>– Line Depth or Equivalent Width</li> <li>– Calibration?</li> </ul>	<ul style="list-style-type: none"> <li>– Dopplergram</li> <li>– Magnetogram</li> <li>– <math>\bar{B}</math></li> <li>– <math>I_\lambda</math></li> <li>– Derived data products: tables, spectrum, a??, synoptic, transforms</li> </ul>	<ul style="list-style-type: none"> <li>– White light</li> <li>– SXR</li> <li>– Calibration</li> <li>– HXR</li> <li>– 1D spectra</li> <li>– 2D spectra</li> </ul>

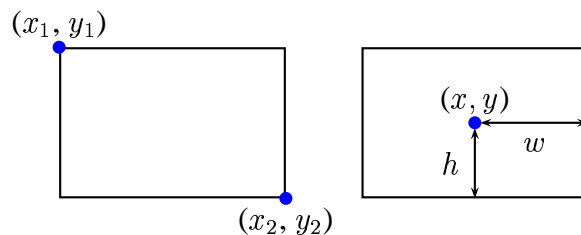
- Processing

- Define processing as “re-doable with different parameters” (Frank)
- Average, transforms (spectrum, power spectrum, spherical harmonic transforms).

- Space/Time specification

- Space

- \* Rectangular region



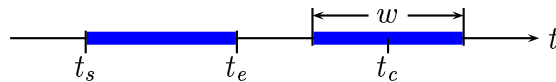
- \* Full disk vs corona
- \* Coordinate system
  1. Cartesian
  2. Heliographic, Heliocentric

### 3. Polar

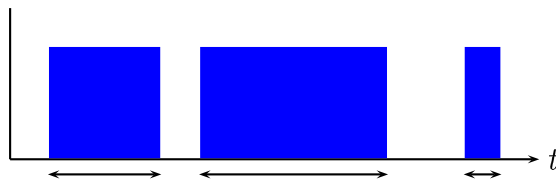
- \* Field of view
- \* Sampling (step size?)

#### – Time

- \* Interval:  $(t_s, t_e)$  or  $(t_c, w)$



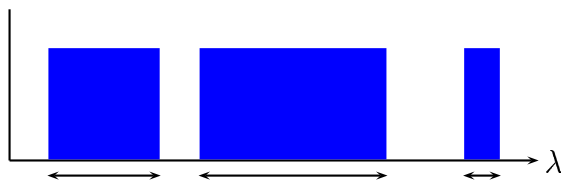
- \* Time resolution vs. observation window
- \* Multiple intervals or gaps



- \* Sampling
  - Constant rate
  - Variable rate

#### • Wavelength

- Filter
- Range
- Multiple intervals or gaps



### Points of Discussion

- Two kinds of metadata:
  - Resource description (who has what), describe individual archive, stored at the VSO registry.
  - Dataset description (how to describe what one needs): data model
- Where does calibration belong?
- Define searchables and their relationships to the data model

- Search by instrument
- Flare catalog
  - not included in current stage
  - possible cross reference in data model
  - treat catalog as data
- How to handle data without observables?
- Height or solar region
- Where are XML schemata used?
  - Validating XML files, e.g. contents of VSO registry.
  - UI design, restrict and validate user inputs.
- Addition characterization of dataset in terms of,
  - Time series
  - Images
  - Flux