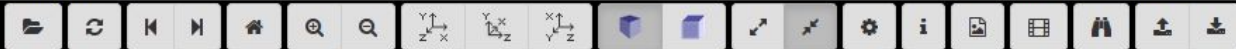


# Event Display - Atlas to iSpy

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Taylor Dinkins



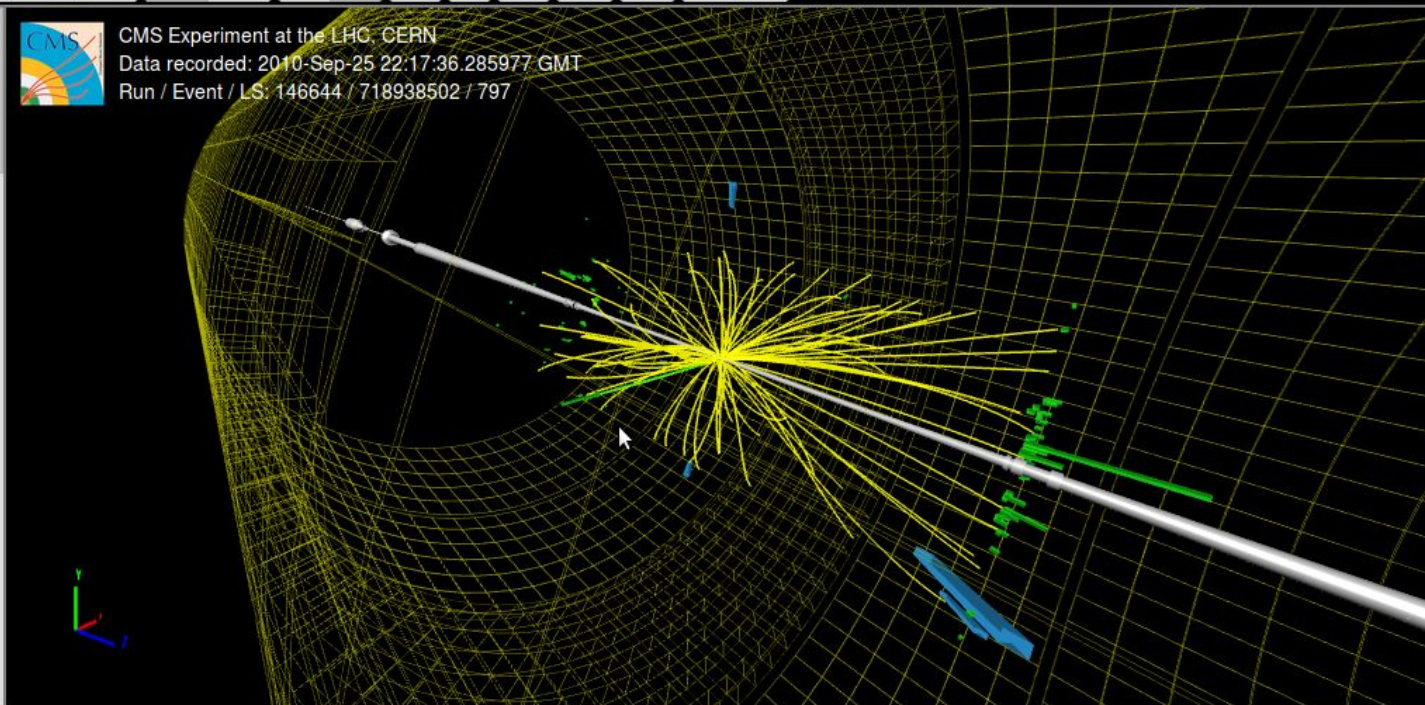
## Detector

Pixel Barrel Pixel Endcap (+) Pixel Endcap (-) Tracker Inner Barrel Tracker Outer Barrel Tracker Inner Detector (+) Tracker Inner Detector (-) Tracker Endcap (+) Tracker Endcap (-) ECAL Barrel ECAL Endcap (+) 

CMS Experiment at the LHC, CERN

Data recorded: 2010-Sep-25 22:17:36.285977 GMT

Run / Event / LS: 146644 / 718938502 / 797



# Atlas Data

- Data retrieved from ROOT files for Atlantis/Athena 2D displays is currently in XML format
- XML Example:

```
<note>
```

```
  <to>Tove</to>
```

```
  <from>Jani</from>
```

```
  <heading>Reminder</heading>
```

```
  <body>Don't forget me this weekend!</body>
```

```
</note>
```

# iSpy

- Open source, 3D event display for CMS detector events
- Challenge is to convert the Atlas data from XML into a specific JSON format that iSpy recognizes - several hundred thousand lines of data per event file
- iSpy JSON format:

```
ig-event-file ::= { 'Types': type-descriptions, 'Collections': collections, 'Associations':  
association-sets }
```

(Where Types are a 'schema' to define the data format, Collections are the data in the specific formats, and associations define indexes of correlated data for drawing)

# Questions?

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