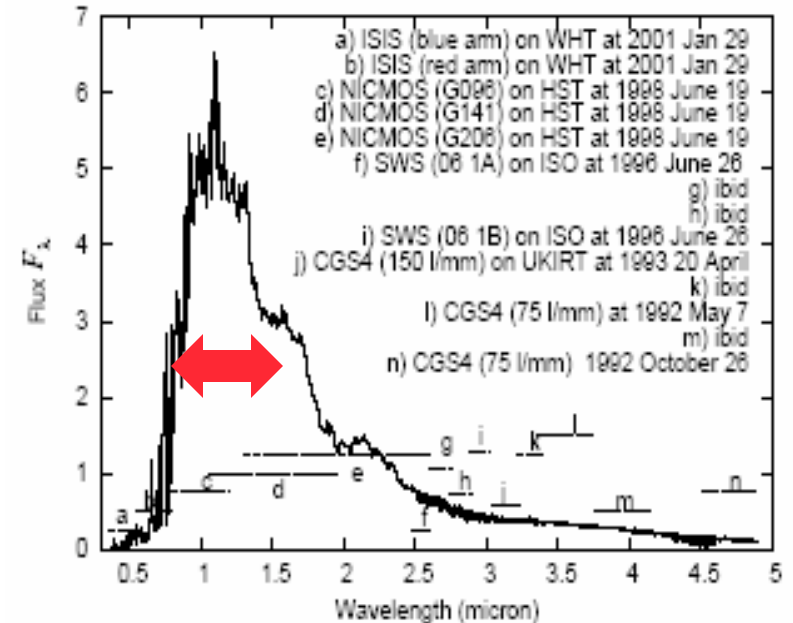




Concept study for a new facility instrument at Penn State: 1-1.7 mm high resolution spectrograph (son of PRVS/XRS)

- **Science Drivers**

- **Planets around M stars**
- Planet atmospheres (transit absorption)
- Brown Dwarfs
- High z GRB's
- Weak nuclear activity in nearby galaxies

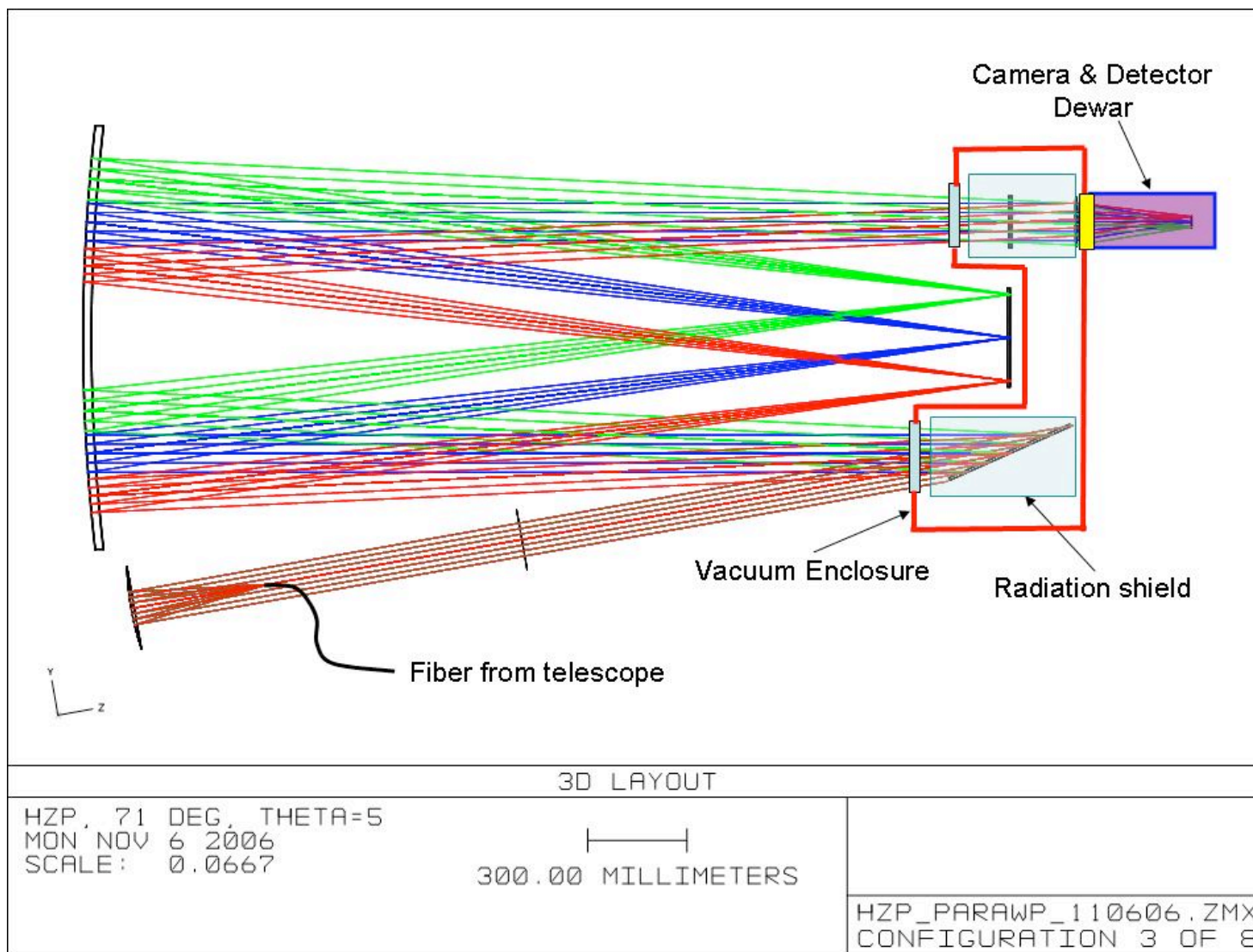


- **Draft Configuration**

- $R = \lambda/\Delta\lambda \sim 40,000-60,000$
- Bandpass 0.95-1.75 micron
- meter/sec radial velocity capability



Optical Concept





HARPS- Lite approach to stability

