

**Annual Report, 2010**  
**Working Group on Astronomical Software**

**Robert J. Hanisch, Chair**  
**Space Telescope Science Institute**

**Arnold Rots, WGAS FITS Committee Chair**  
**Smithsonian Astrophysical Observatory/Chandra X-Ray Center**

**William Pence, IAU FITS Working Group Chair**  
**NASA Goddard Space Flight Center/HEASARC**

**May 5, 2011**

The primary role of the AAS Working Group on Astronomical Software is to function as the body that serves the North American community in formulating, reviewing, and endorsing modifications to the FITS data format standard. The WGAS FITS Committee (WFC) serves as one of four regional FITS standards committees, operating under the IAU FITS Working Group. Arnold Rots (SAO/CXC) chairs the WFC.

There were no changes in membership this year. The committee has 16 voting members.

There have been no calls for ratification of standards or conventions this year.

There were a number of activities in which WFC members, and members of the North American FITS community in general, were involved:

- The publication of V3.0 of the FITS Standard in *Astronomy & Astrophysics*. 2010A&A...524A..42P. *Definition of the Flexible Image Transport System (FITS), Version 3.0*. W. D. Pence, L. Chiapetti, C. G. Page, R. A. Shaw, & E. Stobie, A&A 524, 42.
- Several FITS conventions were posted for review by the community, for eventual inclusion in the Registry of FITS conventions:
  - SDFITS (single dish) convention. This convention defines the structure of binary tables used for the interchange of data from single-dish radio telescopes.
  - Green Bank convention. This convention defines keywords used for recording parameters related to images that are stored in a vector column of a FITS binary table.
- A convention for Tiled Table Compression for compressing FITS binary tables was submitted to the FITS support site. This convention is analogous to the Tiled Image Compression convention, which has been in use for about ten years.
- Work on the World Coordinate System definitions for time coordinates and time series observations continues, albeit at a slow pace, led by A. Rots (SAO), S. Allen (UCSC/Lick Observatory), and W. Thompson (NASA/GSFC).