IAU Standards — Its Future

TOSHIO FUKUSHIMA
Chair, IAU WG on Astronomical Standards
National Astronomical Observatory
2-21-1, Ohsawa, Mitaka, Tokyo 181, JAPAN
(Internet) toshio@spacetime.mtk.nao.ac.jp

The XXIInd General Assembly of the IAU (1994) adopted Resolution B11 to initiate a new permanent activity to maintain the set of astronomical constants and related softwares, which would be referred as the Standards Of Fundamental Astronomy (SOFA), under the WG on Astronomical Standards as

1. *the IAU Working Group on Astronomical Standards (WGAS) continue permanently and assume the responsibility for establishing and maintaining a set of constants, algorythms, and procedures;*

2. *the IAU WGAS identify a single center at a suitable institution, under a worldwide reviewing board, to organize, maintain, and distribute the set of constants, algorythms, and procedures electronically; and*

3. *the center and the IAU WGAS coordinate their activities with the IERS and the IAG.*

Also it decided to introduce a two-tier mechanism in maintaining the numerical estimations of astronomical constants and quantities as in Resolution C6;

1. *the present 1976 IAU System of Astronomical Constants be retained;*

2. *an "IAU File of Current Best Estimates of Astronomical Constants" be established in accordance with the report of the IAU WGAS;*

3. *a sub-working group be appointed by the IAU WGAS to provide definitions of the astronomical units, of the quantities linking these astronomical units to the units of the International System (SI), and of other astronomical quantities, in compatibility with the theory of General Relativity.*

To meet these, the IAU Division 1 has approved to reorganize the WGAS to consist of three sub-functions; 1) the Maintainance Committee to take care of the system of astronomical constants and the list of their best estimates, 2) the Review Board to conduct the nomination of the software center designated in

Resolution B11, Item 2, which is to be called the SOFA center, and to execute the review of algorythms and softwares in collaboration with the center, and 3) the Sub-Group on Relativistic Issues to consider the problems posed in the Resolution C6, Item 3. The SOFA center will be the fourth sub-function after its nomination. In the talk, the author will present the visions on the future activities of all sub-functions.

At the time of writing the abstract, the WGAS is still in the process of nomination of its Members and Chieves of its sub-functions. This is the main reason the author have kept the silence since the last issue of the WG's electronic newsletter, WGAS/Circular No.99, distributed last December. However, once the organizational matters are resolved, we will start to circulate the status of our activities as well as the responses from a wide community of fundamental astronomy and space geodesy. So, please join our discussions!