

# Group **D** = Absence of PA, (SEMS or SS) + (S, G and C) → 21.4%

# Group **E** = Not classified in any before → 9.5%

We concluded that the biggest group (B) is characterised by a large, although not comprehensive, breadth of topics.

The academic staff is mainly male (80.0%). The largest group, 23.6%, is between 36 and 40 years old and 21.8% is between 41 and 45 years old.

Most had a degree in physics (50.8%) followed by geographers (9.8%). As for the graduation, 6.6% have only undergraduate level, 14.7% are specialised, 26.2% have an MSc and 52.5% have a PhD.

Regarding experience in teaching the discipline in the HEI, 63.3% have 5 years and under, and 21.7% have 6 to 10 years.

The teaching materials were classified by: hand-outs (48.8%); videos or films (32.6%); slides (25.6%); star atlases and astronomical ephemerides (18.6%); magazines, papers articles and texts (14.0%); models of the Solar System, eclipses etc (9.3%); transparencies or overhead projector (9.3%); microcomputers, software, CD-ROM and Internet (11.6%); instruments such as sundials, compass and theodolite (4.6%).

Only 40% sent information on practical activities. Of those, 35.0% mentioned observation of the sky by naked eye and by telescopes, photography, determination practices, visits to observatory and planetarium etc. Only 8.3% mentioned other activities such as laboratory classes, concrete materials, construction of models etc.

We also surveyed the cited bibliographies of 165 books – 44.8% edited in Brazil and 55.2% foreign.

The data were greatly dispersed. Most used the textbook *Conceitos de Astronomia* by Boczko (1984) (32.6%). There were no textbooks that influenced the contents of each group of disciplines.

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## NEWS OF MEETINGS, AND BRIEF ANNOUNCEMENTS

### TWO MEETINGS IN BRAZIL IN 1999

Two meetings are reported here (1) XXV<sup>th</sup> Annual Meeting of the Brazilian Astronomical Society (Sociedade Astronômica Brasileira - SAB, held at Hotel Glória, Caxambu, Minas Gerais, Brazil, on August 1-5) and (2) IV<sup>th</sup> Brazilian Meeting on Teaching of Astronomy, which was sponsored by the Fundação Planetário da Cidade do Rio de Janeiro (held in the Planetarium of Rio de Janeiro, on December 1-2). On December 3-4 the IV<sup>th</sup> Meeting of the Brazilian Association of Planetariums (ABP) was also held.

### XXV<sup>th</sup> Annual Meeting of SAB

The main objective of SAB's meetings is to provide a view of the scientific activities in astronomy developed in Brazil, providing an opportunity for the associates to better interact among themselves. There were about 250 participants and the program was especially designed for the celebration of the 25th anniversary of research in Brazil since the foundation of SAB. There were 14 invited talks, 3 debates, 257 poster presentations and 1 exhibition devoted to various astronomical sub-areas, including teaching and history of astronomy. There were 14 posters and 2 debates devoted to the teaching and popularisation of astronomy.

The first debate, *Ethics in science popularisation*, was held on August 2, under the coordination of José Renan De Medeiros (President of SAB/UFRN) and with the participation of José A de Freitas-Pacheco (IAG/USP), Augusto Damineli (IAG/USP), the journalists Ulisses Capozoli (Centro de História da Ciência/USP), Martha S J França (Revista Época), and Dante Grecco Neto (Revista Galileu). The second debate, *Teaching of Astronomy* was coordinated by João B G Canalle (Coordinator of SAB's Teaching Commission - CESAB -/UERJ) on August 4 with the participation of Lilia Arany-Prado (OV/UFRJ), Mariângela de Oliveira-Abans (CESAB's Vice-coordinator/LNA), João Braga (INPE) and Lourdes R B Galliac (SE/Caxambu).

In order to comply with its mission and objectives, CESAB usually organises a series of activities for the local teachers and general public, which are developed simultaneously with the scientific meeting. The *4th Cycle of Activities on Astronomy of CESAB* was coordinated by Mariângela de Oliveira-Abans and consisted of short courses, lectures, night sky observations and planetarium shows for teachers, students, and general public.

The short courses were attended by 11 previously enrolled and selected teachers from the schools of Caxambu and surrounding cities, from August 2 through 5. The program was the following: *Stellar Evolution* (Lilia Arany Prado); *The Solar System* (Cláudia Vilega/INPE); *Contents of Astronomy in School Books* (Ramachrisna Teixeira/IAG/USP); *A Trip by the Cosmos: Discovering our Universe* (Martin Makler/CBPF and Carlos A Wuensche/INPE); *Astronomical Instruments* (Paulo S Bretones); *G: from Gravitation to Galaxies* (Mariângela de Oliveira- Abans), and *Demonstration of a Workshop on Astronomy* (João B G Canalle). There was also the invited lecture *In Search for the Pillars of Creation* (José Renan De Medeiros). There were experiments, distribution of texts and magazines, construction of teaching materials and use of microcomputers.

On August 2 and 3, the Museum of Astronomy and Related Sciences (Museu de Astronomia e Ciências Afins, MAST) set up a portable planetarium in the city's sports gym and received about 550 students from local schools. In order to observe the night sky, a Meade 10 inch telescope was set up by Júlio C Klafke and colleagues (IAG), and a 60-mm refractor by Paulo S Bretones, Mariângela de Oliveira-Abans and João B G Canalle in the yard of the State School Domingos Gonçalves de Melo.

Two public lectures took place at the Municipal Theatre: *Astronomy – Studying the Universe* by Paulo S Bretones, directed to around 40 people on August 2, and *The Search for Extraterrestrial Intelligence* by Carlos A Wuensche, to around 35 people on August 3.

João B G Canalle organised a meeting of CESAB with other SAB's members who are interested in teaching and outreach to discuss projects, lines of action and future work. An annual report of CESAB's activities is presented during the society's general assembly, and a written report is formally published in the annals.

#### **IVth Brazilian Meeting on Teaching of Astronomy**

There were about 130 participants - school and university teachers, students, planetarians and amateurs. The program consisted of 5 lectures, 7 oral communications and 25 poster presentations.

The opening lecture, *Introductory disciplines of Astronomy in Undergraduate Courses in Brazil* was given by Paulo S Bretones. The others lectures were: *The teaching of Astronomy in the Undergraduate course – Formal teaching and Science Initiation* by Lilia Arany-Prado (OV/UFRJ); *A science to read the world* by Rodolpho Caniato; *Astronomy in the primary and secondary teaching* by Rute H Trevisan (CESAB/UEL); *The Popularisation of Astronomy and its relations with teaching* by Walmir T Cardoso (SBEA).

The oral communications were devoted to various themes as follows: *A virtual library of Astronomy* by José Adolfo S de Campos (OV/UFRJ); *The II Brazilian Olympiads of Astronomy* by João B G Canalle (CESAB/UERJ); *Revision of astronomical textbooks* by Walkiria Schultz (INPE); *Teaching materials for Astronomy* by Oscar Matsuura (MAST); *Popularisation: why put journalists and scientists together?* by Dante Grecco Neto (Editora Globo); *Solar telescope and remote telescope* by Fernando A Vieira (Fundação Planetário); *Teaching of Astronomy on the internet - uses at Fundação Planetário* by Paulo C R Pereira (Fundação Planetário)

On the evening of December 1 the book entitled *Astronautics - From Dream to Reality* by Ronaldo R F Mourão (MAST) was released. There was a special planetarium show for the participants of the meeting entitled *The prince without a name*. The Rio de Janeiro Planetarium has a Zeiss Universarium VIII TD projector and a capacity of 277 seats.

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#### **THE RAS/IAU MEETING AT THE IAU GENERAL ASSEMBLY 2000**

The development and utilisation of telescopes for educational purposes were prominent on 18 August at a special session of the IAU in Manchester. The session, which was organised by Barrie W Jones & Alan Pickwick of the UK Royal Astronomical Society Education Committee, was entitled Astronomy Research Projects for School & University Students.

The morning session began with a live demonstration by David Smith from Highgate School, London of a robotic telescope for school use. The refurbished 60 cm reflector instrument, which is situated on Mt Wilson in California, is available for remote observers in schools throughout the world to control and take photographs in real time. Mr Smith