

Report on CHAPS status and activities for CHIPP

(Martin Kunz, CHIPP observer to CHAPS, based on the minutes of the 2023 CHAPS meeting, 29/09/2023, Bern)

Structure, role and composition of CHAPS

The CHAPS Chair (Prof. Philippe Jetzer, UZH) explained the role of the Swiss Commission for Astronomy (SCFA, <https://scfa.scnat.ch>), which is a formal committee of the Swiss Academy of Sciences (SCNAT). SCFA corresponds roughly to the CHIPP Executive Board.

The College of Helvetic Astronomy ProfessorS (CHAPS) is not a separate legal entity, but functions as the astronomy counterpart of the CHIPP Board. It is an advisory body for the SCFA and helps to define strategic priorities for the Astronomy Roadmap and FLARE funding.

The composition of CHAPS is defined (according to <https://scfa.scnat.ch/en/chaps>) as “CHAPS members are professors with a permanent position in Switzerland. This includes titular professors but excludes, e.g., SNSF and ERC professors.” In practice, tenure-track assistant professors are included as well. CHAPS expects that in fields overlapping with both astronomy and particle physics, a professor is in principle either a member of the CHIPP Board or of CHAPS, but not of both.

Short reports from bodies of interest

CHAPS members presented a series of short reports:

- ESO (S. Udry) : Primarily ELT status, first light planned for 2027.
- ESA (S. Paltani) : Highlights of 2023 included the launches of Juice, Euclid and XRISM. LISA was adopted at the end of 2023 (after the meeting), while Athena is still under redefinition. Carole Mundell is the new Director of Science since March 2023.
- SSAA (M. Haberreiter) : SSAA GA (which took place in October 2023 in Geneva).
- IAU (W. Benz) : New ‘junior’ membership category for early career post-docs. Plan to create a point of contact for IAU education and outreach (Switzerland is the only country without one) – SCFA will create a working group to study this.
- ASTRONET (J.-P. Kneib) : Planning and advisory network for European Astronomy. ASTRONET completed a roadmap 2022-2035 in summer 2023, providing recommendations on major observing and computation facilities. A new president will be needed.
- SCFA (Ph. Jetzer) : SERI has asked SCFA to propose two candidates to succeed S. Udry as Swiss scientific delegate to the ESO Council, which led (after the meeting) to the selection of Prof. Francesco Pepe (UGe) as new delegate for a first term of 2024-2026. An SCFA working group is also discussing the possibility to install a ‘new generation Event Horizon Telescope’ radio telescope at Gornegrat.

Astronomy Roadmap

The Astronomy Roadmap 2025-2028 was completed in 2022. A new mandate by SERI to the Swiss Academies to update the seven thematic roadmaps had not yet been signed by the time of the meeting. SCNAT did however receive at the end of 2023 the mandate by SERI to provide the updates by the end of 2024. In August 2023, SERI made it clear that for particle physics and astronomy the focus will be on international facilities rather than on new national infrastructures. The SCFA (and CHIPP) are at any rate willing to provide an update. At the meeting it was decided to focus on the the four themes in Annex II of the astronomy roadmap, i.e., 1) Fundamental physics, 2) Origins: stars, galaxies and the evolving Universe, 3) Planets and search for extra-terrestrial life, and 4) Our home and its space environment. The CHAPS members were asked to join one of the four themes.

FLARE projects

CHAPS and CHIPP are well-aligned now for FLARE proposals and provide joint presentations concerning priorities, and both have related worries concerning reliability of funding for long-duration projects and how to deal with delays in international projects that are unrelated to the Swiss contribution.

CHAPS notes that astronomy projects in 2021-2024 remained a small part (<~20%) of the whole FLARE funding, with the rest mainly going to CHIPP projects. The projection for 2025-2028 communicated by SCFA to SERI is much higher. Those projections may be too ambitious, but CHAPS considers that an increase in its share should be a legitimate request. However, CHAPS also notes that CTAO and SKAO are funded primarily outside of the FLARE process. The CHAPS Chair asks PI's to provide the Chair with updated estimates of funding needs well in advance of the next FLARE submission in November 2024.

Research infrastructures and funding schemes

F. Pepe made a survey among CHAPS members on their interest in different projects, 32 out of 45 provided answers. In decreasing order (with number of votes in parenthesis): ESO ELT & VLT (22), ESO (18), SKA (12), ALMA (7), ET (5+maybe 2), CTA (4) and EST (2).

There is also a new scheme, SNSF MARVIS (Multidisciplinary Applied Research Ventures in Space) that will provide 3.5 M-CHF annually for international research networks.