



**Minutes from the March 2019 meeting of the National Committee for Astronomy (NCA) of the Royal Swedish Academy of Sciences (KVA)**

**Date:** Thursday 2019-03-28, 10 – 14

**Location:** Palmérummet, Astronomihuset, Sölvegatan 27, Lund

**Participants:** Yvonne Becherini (YB, Linnéuniversitet), Alexis Brandeker (AB, SU, via zoom, from 13:00), Sofia Feltzing (SF, LU), Ulrike Heiter (UH, UU), David Hobbs (DH, LU), Kay Justtanont (KJ, CTH, via zoom), Oleg Kochukhov (OK, UU), Josefin Larsson (JLa, KTH, via zoom, until noon), Garrelt Mellema (GM, SU), Barbro Åsman (BÅ, SU), Göran Östlin (GÖ, SU, via zoom)

**Not present:** John Conway (JC, OSO, excused), Jorrit Leenaarts (JLe, SU, excused), Jesper Sollerman (JS, SU, excused), Wouter Vlemmings (WV, CTH, excused), Jan-Erik Wahlund (JEW, IRF i Uppsala)

**1a. The meeting is opened by SF**

**1b. Acceptance of the agenda**

The agenda is accepted as it is.

**2. Designation of chair, vice-chair, and secretary for the coming three years (2§ stadgarna)**

Suggestion by SF:

*Chair:* Sofia Feltzing (LU), *Vice-chair:* Josefin Larsson (KTH), *Secretary:* Ulrike Heiter (UU)

**Decision:** The officers are appointed according to the suggestion.

**3. Round of presentations**

*Josefin Larsson* (KTH) – represents high-energy observations community (gamma-ray bursts, AGN, ...), member of Young Academy of Sweden, interested in science policy and outreach

*Göran Östlin* (SU) – galaxies, VLT, JWST, ELT, member of KVA, has been in committee before

*Kay Justtanont* (CTH) – late-type stars, gas/dust interaction, Swedish co-PI on JWST MIRI

*David Hobbs* (LU) – working on Gaia mission (for at least last decade, and maybe 8 years more), leading proposal for future Gaia-NIR mission (will be submitted to American decadal survey), LISA, etc.

*Ulrike Heiter* (UU) – stellar spectroscopy and stellar atmospheres, with applications to planetary systems and the Milky Way galaxy, Gaia, CRIRES<sup>+</sup>, PLATO, ELT subcommittee, ...

*Oleg Kochukhov* (UU), stellar physics, high-resolution spectropolarimetry of stars, instrumentation for existing and future large telescopes, e.g., ELT-HIRES, space missions (Kepler, BRITE, TESS, PLATO, ...)

*Yvonne Becherini* (Linnéuniversitet) – gamma-ray astronomy (very high energy, which is a small community), international projects: H.E.S.S. (Namibia), CTA (Cherenkov Telescope Array), interested in improving detection techniques, future wide-FoV telescope in southern hemisphere, board member of Section “Elementary particle physics and astroparticle physics” (ELPAF) of Svenska Fysikersamfundet

*Barbro Åsman* (SU) – particle physics, chair of Class for physics of Swedish KVA, chair of Space Research Advisory Committee, member of board of KTH Space Center, previous member of IRF Board

*Garrelt Mellema* (SU) – cosmology, epoch of reionization, cosmic dawn, numerical simulations using SNIC, LOFAR (chair of Swedish LOFAR consortium), future SKA (chair of Science Working Group), member of KVA

*Sofia Feltzing* (LU) – Milky Way as a galaxy, old stars, elemental abundances, motions, ages, ground-based spectroscopy in combination with Gaia, has been on NC several times, ESO STC, ESO Visiting Committee, member of KVA

*Alexis Brandeker* (SU) – circumstellar disks, exoplanets, and astrobiology, coordinator for Swedish contributions to ESA missions CHEOPS and PLATO, Swedish representative in the European Astrobiology Network Association (EANA). Member of NC since 2013.

*Wouter Vlemmings* (CTH) – evolved stars/star formation/magnetic fields/pulsars/radio-astronomy, radio and sub-mm/mm interferometry (ALMA/VLBI/JVLA/LOFAR/SKA), former head of the Nordic ALMA Regional Centre, head of Galactic astronomy at CTH, member of previous NCs.

#### **4. Report from meeting with National Committee (NC) chairs at KVA (27 Mar 2019)**

SF: Meetings with NC chairs were held in three groups of six (there are 18 committees). Of the six people invited for 27 Mar, three people were present (Astronomy, Mathematics, Radio Science). Radio science has some overlap with Astronomy, *e.g.*, it has a section for Radio Astronomy (see also item 11a). NCs are responsible for the Swedish connection to large international organizations: NCA for International Astronomical Union (IAU), Radio Science for International Union of Radio Science (URSI).

Past tasks of NCA mentioned at the meeting: NCA has been contact towards the Swedish Research Council’s Council for Research infrastructure (VR’s RFI), and towards the Swedish National Space Agency (Rymdstyrelsen); NCA has been co-organizer of Astronomdagarna. Members of facilities have been reporting to NCA.

At the meeting there was a discussion of the connection to the International Science Council (ISC).

#### **5. What should NCA work with?**

##### **a. Introduction:**

SF distributed by-laws (stadgarna) for NCs (in general), which were looked through together. Comment on 2§: NCA has 16 members, of which 5 are members of KVA (JC, SF, GM, JEW, GÖ) [The limits are max 20 members, of which at least 2 are members of KVA]. Some discussion related to 8§ – how to improve contact and visibility to researchers, including web page. Current web page is on web site of Swedish Astronomical Society (SAS), and contains copies of minutes of meetings: <http://www.astronomiska.se/nationalkommitten/>

Should probably be moved to another site (and updated).

SF distributed Administrative guidelines for National Committees and “Sponsringspolicy”, which were looked through together.

**b. Discussion:**

DH: We need to get an overview of the purpose and tasks of NCA.

GM (has been involved in selection process for new NCA members): Committee members were selected to represent as many (national) infrastructures and organisations as possible and to represent the different astronomy institutes; future new ESO council member could be added in the future; connection to ESO is important (also noted by YB); more communication between astronomy institutes would be good.

SF: The last point could be a possible agenda item in the future.

JLa: How is the advice to RFI handled – actively or passively?

BÅ: In the past, RFI asked the committee for input.

SF: In the past, a representative for RFI was present at meetings and was very active.

GM: We should invite a new representative from RFI.

**c. Are there important items to start working on?**

GM: What about engagement within **education**? What about connection with **society**?

DH: Connection with **society** is covered to some extent by Astronomdagarna and by connection with SAS.

BÅ, SF: We could have discussions / reports on specific (successful) public outreach activities done by different institutes.

YB: What could we do related to **education** more specifically?

GM: We should start to talk to each other; no concrete proposal so far, maybe it is not needed, but could be beneficial.

BÅ: As an example, there are common courses for PhD students from different institutes in particle physics / detector development, funded by NORDFORSK.

OK: Has been running a common PhD course between Uppsala and Stockholm Solar Physics group, without dedicated funding. In practice, this is often covered by summer schools.

GM: SU has been struggling with implementing the plan for PhD courses, which should give a broad background in astronomy; maybe this could be addressed by a “national summer school” for PhD students.

SF: Could be an interesting idea, which should be addressed by a **subcommittee**, extended by relevant people from different institutes. Others agree that this is a good idea.

SF: Should we have a closer connection with the **NC for Radio Science**?

KJ: JC is member of “Section for Radio Science” (or similar) and would be a natural link. See also item 11a.

SF proposes to look into whether we are missing **any other organisations**.

**d. Should VR (RFI) and Rymdstyrelsen representatives be adjoint to the committee, and for the next meeting also the current ESO Council representative?**

**Decision:** Yes.

**e. Reports from facilities:**

SF: Do we want reports from different facilities? What is the purpose of these reports and how do we work towards the facilities?

YB: Was missing a general overview of the field in the past, *e.g.*, different facilities for radio astronomy that exist, not only those that Sweden is involved in.

SF: Proposes to have reports on science done in different institutes in general (with different facilities), to learn more about what is going on in different institutes.

**f. Frequency and nature of meetings:**

SF: Proposes two physical meetings per year, next one if possible in connection with Astronomdagarna, and video meetings focussing on specific topics in between.

YB: Would like to organise next Astronomdagarna (2021) at Linnéuniversitet (instead of Göteborg/Chalmers).

KJ [mail sent after meeting]: I have asked around our astronomy group about Yvonne's proposal to host astronomdagarna in 2021 instead of it being held in Göteborg. We agree that Yvonne can have the meeting at her institute and Chalmers will host it the time after that.

**6. Astronomdagarna 2019**

AD 2019 will take place Thu-Sat, 24-26 October in Stockholm.

AB (chair of SOC): Dan Kiselman is chair of LOC. SOC members have been chosen to represent a diverse set of astronomical institutes: AB (SU), Magnus Axelsson (SAS), OK (UU), Ragnhild Lunnan (SU), Hans Nilsson (IRF), Ariel Goobar (SU Physics), DH (LU), Magnus Persson (CTH), Felix Ryde (KTH) [male/female ratio of 8/1 was noted]. Rooms are booked (at Alba Nova). Sat will be dedicated to SAS (100 year anniversary). Programme for other days is under development. Registration will open on 15 Apr; Deadline for submission of oral contributions is 31 May; Programme will be announced on 14 Jun; Registration closes + deadline for poster submission on 24 Sep. 20000 SEK contribution from KVA has been received. Web page (published one day after meeting):

<https://astro.su.se/astronomdagarna2019>

SF: Proposes to develop new guidelines for Astronomdagarna. In the future, a representative for NCA in the SOC should be appointed (could be a person having double representative roles in order to avoid a too large SOC).

AB [mail sent after meeting]: Guidelines from 2013 exist and are available on-line:

<http://www.astronomiska.se/wp-content/uploads/2013/01/astronomdagarna-vitbok.pdf>

SF [mail sent after meeting]: The existing guidelines are a good starting point, but should be updated.

GM: How are invited speakers selected?

AB: Proposals from local representatives will be collected and discussed (priority will be given to young speakers, no talk at last two meetings, gender and geographical balance, connection to Sweden). Planning for 5-6 invited speakers, 20 talks in total (1,5 days of talks). On the first day the Manne Siegbahn memorial lecture will take place, which is Astronomy related (Fiona Harrison).

**7. Comments from NCA on ESO European Astronomy Partnership and ELT Partnership**

Letter from Hans Olofsson (Feb 2019) was received and comments by NCA were sent before the meeting.

GM: Has there been any answer to our comments? SF: No specific answer was received.

SF: Since there is nothing more to add, this item is closed.

**8. Plan-S for Open Access**

SF: Introduction about Plan-S (EU initiative for "golden open access" for published research by 2020). Has been briefly discussed by NCA before. Should astronomers engage? If yes, how do we proceed?

YB: This question is being discussed in ELPAF board, with diverse opinions; general feeling is that full implementation will lead to lower quality publications; arXiv is being used for open access distribution.

OK: Has followed the topic; seems to be a joint attempt to attack two different things: promoting open access, and decreasing costs of subscriptions for, *e.g.*, university libraries, which have been increasing significantly in recent years (typical costs per year are currently ~60 MSEK per library); intent is to switch to “pay to publish” instead of “pay to read” model; astronomy community already has possibility to comply with the proposed rules by dual publishing on preprint servers, except for a few journals such as Nature and Science; caveat: universities might decide to unsubscribe from journals.

GÖ: Has encountered resistance from researchers in different other committees in communities which are not used to open access; in terms of scientific method and reproducibility it is a good direction, but the decision should be made by individuals.

GM/AB: An example for a negative side effect is the discontinued access for Swedish researchers to journals published by Elsevier since 30 June 2018. This includes the journal Icarus, which provides a useful link between exoplanet and solar-system communities.

SF: NCA should keep this question on the radar (*e.g.*, next meeting agenda) in case a request for comment comes to NCA in the near future.

## 9. European Astronomical Society (EAS)

SF: EAS ([eas.unige.ch](http://eas.unige.ch)) is an independent body to promote and advance astronomy in Europe. Every year it organises the European Week of Astronomy and Space Science (EWASS, 2019 in Lyon) with ~1000 participants. Gives out a number of prizes (see minutes from previous meeting). Currently ~2400 members. There is an EAS representative in Brussels. Sweden does not have an affiliated society with EAS. The advantage of having an affiliated society would be that members of the affiliated society have *free* EAS membership. The benefit of EAS membership is, *e.g.*, a reduced registration fee for EWASS (see webpage for complete list of benefits).

SF: There was a one-week event organized by EAS in Brussels about 1 month ago, including an exhibition with a model of the Gaia satellite, ESA posters, etc.; attended by Members of the European Parliament (MEPs, led by Clare Moody), people from Gaia, ERC people, ... (about 20 people); SF gave a talk about Milky Way and Gaia.

SF proposes to get more information by, *e.g.*, a Skype meeting with chair of EAS and then discuss about possibilities for how/which Swedish organization could become an affiliated society member. There has been a discussion within SAS about a membership, with diverse opinions (large participation of amateur astronomers in SAS, which are not concerned by EAS).

GÖ: SAS is not the ideal organization because of its structure, NCA should play a role.

## 10. ALLEA – All European Academies: The European Code of Conduct for Research Integrity

SF: Postponed to next meeting (not an urgent question).

## 11. Other items

### a. Swedish Government Official Report on the usage of radio frequencies (SOU 2018:92)

SF: The report SOU 2018:92 (“Frekvenser i samhällets tjänst”) has been referred to KVA for consideration (remiss). The National Committee for Radio Science will write an answer to the remiss. Should NCA take part in writing this answer (due by 5 June 2019)?

GM is interested in taking part, together with another person from NCA tbd (SF will ask WV), to comment on aspects specific to radio astronomy.

Note added after meeting (UH): The report has 328 pages, and radio astronomy (radioastronomi) is mentioned on pages 68, 154, 194, and 197).

<https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2019/01/sou-201892/>

**b. IAU memberships:**

SF: The first round of *junior IAU memberships* has been completed (see minutes from previous meeting). NCA provided a template for reference letters. 7 applications were received and all were approved (post-docs from Chalmers, Nordita, KTH, Oskar Klein Inst., Lund, Stockholm). In total (*i.e.*, whole world), 205 applications were received and approved. The IAU membership committee has written a report.

OK: At which career point (in Sweden) is the switch to regular membership?

GM/SF: There are no strict rules (regular IAU members should be “professional astronomers” according to IAU regulations), it is judged on a case-by-case basis. Call for junior IAU memberships is every year with deadline 31 Dec.

**c. IAU 100 yr events:**

SF will attend the “100 years under one sky” celebration flagship ceremony on 11-12 April in Brussels.

**12a. Next meeting**

SF will call the next NCA meeting in October 2019, if possible in connection with Astronomdagarna in Stockholm (*e.g.*, one day before).

**12b. End of meeting**

Minutes taken by

Approved by

Ulrike Heiter (secretary)

Sofia Feltzing (chair)