

Minutes of the MC meeting Vienna – 10 April 2013

Participants:

Stefano Bagnulo (UK), Mathieu Barthélemy (FR, Vice-Chairman), Tanyu Bonev (BG), Andreas Eckart (GE), Silvano Fineschi (IT), Juris Freimanis (LV), Laurens Katgerman (NL, DC Rapporteur), Andrzej Krankowski (PL), Dragana Ilic (RS), Hervé Lamy (BE, Chairman and Grant Holder Representative), Arturo Lopez Ariste (FR), Karri Muinonen (FI), Mark Pearce (SE), Luka Popovic (RS), Renzo Ramelli (SW), Theresa Rank-Lueftiner (AT), Pablo Reig (EL), Hanna Rothkaehl (PL), Jan Rybak (SK), Hans Martin Schmid (SW), Andy Shearer (IE), Frans Snik (NL), Daphne Stam (NL)

1. Welcome to participants

MC meeting starts at 12h25. Chairman and Vice-Chairman welcome everyone. Since there were new members attending for the first time, the Chairman asks everyone to briefly present themselves.

2. Adoption of the agenda:

The agenda sent the week before by e-mail is adopted with two amendments: Prof. Mark Pearce will talk about another possible meeting in 2014 and Dr. Hans Martin Schmid will present a short summary of the calibration workshop organized in Zurich in January 2013.

3. Minutes of last meeting:

The minutes of the MC meeting held in May 2012 in Warsaw and of the SC meeting (videoconference) in October 2012 are adopted by a majority.

4. <u>Update from the Action Chair</u>:

a) Status of the Action, including participating count:

Chairman mentions that currently the mailing list comprises 277 e-mails, the website has 189 registered people and the Action has now officially 22 participating countries. Since the last SC meeting, 4 new countries have joined:

- Slovakia on November 5
- Bulgaria on November 28
- Greece on December 18
- Denmark on March 6

Chairman reminds that since November 2012, all new demand from a country to join our network needs an approval from the MC. Chairman asks if anybody knows scientists from other COST countries that have not signed the MoU so far. Currently the answer is no.

b) Budget status:

Chairman briefly reminds the problems we had with the workshop in Zurich organized in January 2013. The budget & work plan had to be voted in emergency and with the agreement of the COST Office, the Grant Agreement could be signed after the workshop so that access to e-COST in 2013 was given to the Grant Holder right on time. Chairman would like to thank once again the MC members for their quick reaction and the COST Office for their help to solve this issue. Lesson to be learnt from this: we will not organize anymore a meeting before at least end of February.

Another reminder: budget cannot be transferred to next year. Last year we had approximately 30K of unused money because we received 54K during the 2nd installment which we did not expect (it was due to many more countries signing the MoU after the K-O meeting). We tried to spend 15K for the ESO movie last year but due to administrative problems we could not do it.

Budget for 2013 is briefly reminded and discussed by the Chairman:

- 63 k€ for meetings
- 32.5k€ School in Aussois
- 20 k€ STSM
- 4 k€ Outreach
- For the calibration workshop in Zurich, 11650 EUR were used out of the 12000 EUR planned in the budget.
- For the MC meeting in Vienna, budget was of around 17000 EUR but it assumed participation from 37 MC members + DC rapporteur. Only 22 people are present at this

meeting so at least 4000 EUR could be saved and used for the school in Aussois instead (see below).

- For the special session "Polarization and spectral lines" organized during the 9th SCSLSA in Serbia, a budget of 5000 EUR for 8 participants was planned. We will reimburse 8 participants including one expert from Russia (Prof. Zakharov).
- For the meetings in Helsinki & Florence, respectively 15000 and 13000 EUR were allocated for these meetings with the idea to reimburse approximately 15 participants at each meeting. These numbers can be adapted after the 2nd installment, in particular for the one in Florence which is organized at the end of September.
- For the international school on Astrophysical Polarimetry, organized in Aussois (France) in June, the budget was of around 32500 EUR but current prevision in e-COST is of around 38000 EUR. Reason is that in the initial budget, it was planned to reimburse 20 trainees while in practice we have decided to provide a grant for 29 trainees (out of a total number of 32 or 33). The difference (around 5500 EUR) could be easily deal with taken into account the money saved for this MC meeting.
- STSM: 20000 EUR were planned in the budget. 10300 EUR have been used during the first call of the year (until end of June). So no problem here.

c) STSM status and new applications:

1st call in January for period February-June (included). 10K€ allocated, 7 applications for t a total of 10,3 K€. SC accepted all applications despite small deviation from budget. 2 STSMs have been completed so far.

2nd call for period July-November (included). Chairman suggests to not have STSM in December as it is difficult to make the payments then because scientific report has to be sent after the STSM (at least 2-3 days) and SC needs one week to evaluate it. IASB which acts as Grant Holder stops the payment around 15 of December. So MC decides that last day of a STSM must be 30 of November.

The call will be done by April 20, deadline for application will be May 20, decision of the SC on June 10. MC agrees with these dates.

5. Promotion of Gender Balance and of Early Stage Researchers:

For ESRs, the biggest achievement is of course the organization of the international school on Astrophysical Polarimetry in Aussois, France, in June. Particular attention was also given to the participation of young scientists to our meetings. For the 1st call of STSM, 3 applicants out of 7 were ESRs.

For gender balance issue, nothing specific has been done so far. Following what the organizers of the EPSC meeting in Madrid did last year, Chairman suggests that some short video-interviews could be done of the young female scientists participating to our school and/or future meetings. Dr. Rank-Lueftinger also suggests that senor female scientists could also be interviewed to give some hints about their careers. The interviews would be short including a few questions about background at university, a few words

about their current research, etc ... Dr. Lopez Ariste suggests that the videos should be made with professional material, otherwise the result using our own cameras could look too amateur-ish. Dr. Barthélemy will look after professional video material that could be borrowed from University of Grenoble and used in Aussois with the students participating at the school. Of course participation in these videos will not be mandatory. It will be based on good will. Videos will be uploaded on the website. Another option is to make a written interview if people are not at ease with uploading their images on the internet.

Chairman also mentions that her former colleague from University of Liège, Dr. Yaël Naze, is interested to join our network at the end of this year or maybe next year. Dr Naze works on spectropolarimetry of heavy stars and is a specialist in outreach activities but also in promoting women activities in science. In particular she wrote a book about the influence of women in the history of astronomy. Chairman will contact her again in a few months to ask if she still wants to join.

6. <u>Update from the COST Office</u>:

- Our Science Officer at the COST Office, Dr. Caroline Whelan, will soon go on a maternity leave. A temporary position for about 10 months is currently available to replace her, from July 2013 to around April 2014. Chairman will distribute the job announcement to MC members. Deadline for application is around end of April.
- Chairman reads quickly an e-mail sent by Caroline about "reminder of good practice". In particular, minutes of MC meetings are always required by the COST office and the DC rapporteur. Report from scientific meetings can be done on a free format and should be sent within 4 weeks after the meeting. Invitation to meetings should be sent at the latest 4 weeks before the meeting such that participants can buy the cheapest flights possible. Chairman adds that we should never let people buy tickets for a meeting before official invitations have been sent through e-COST. This is the big mistake we made for the workshop in Zurich and that we should not do anymore in the future.

7. <u>Update from the DC rapporteur</u>:

There will be elections soon for a new president of CSO. Former president was from Spain.

Congratulations to the Chairman/Grant Holder/MC members for running a very successful Action so far.

8. Annual Progress Conference:

COST MPNS 7th Annual Progress Conference (APC) meeting will be organized in Reykyavic from 10 to 11 September 2013. Each Chairman is invited to present his/her Action and/or the latest developments in the Action. DC Rapporteur mentions that the DC will modify the templates for Chairman's presentation of the running Actions as they

want to focus more on science and less on numbers of STSMs, ESRs, etc ... as these numbers appear in the yearly reports anyway.

9. Follow-up of MoU objectives:

Chairman reminds that in principle each WG leader should write a summary of the activities since last MC meeting. Since a reminder had not been sent, it is asked to do it before end of May. It does not have to be too long (1 page is enough).

Workshop in Zurich about calibration was certainly a mix between WG1 and WG3 meeting. It can be included in both reports. Dr. Schmid, local organizer of this workshop, makes a quick summary of the workshop: 30 participants, 20 talks completed with discussions. Several non-COST participants including 2 experts that our Action reimbursed (David Buckley from South-Africa and David Harrington from Hawaii). Questionnaire were filled by around 10 people and summary of the recommendations was presented during the workshop. All presentations + questionnaire summary + scientific report are available on our website (www.polarisation.eu).

Following this workshop, several recommendations were given. One of them consisted in developing a web tool to create a list of existing instruments. This has been done and was one of the deliverables promised in the MoU. Five instruments have been submitted so far. We obviously need more and the goal is to be as complete as possible before the end of the Action. Dr. Snik suggests to make a list of missing instruments and to assign names to them to make the submissions. He already sent this list & persons to contact. Chairman will also send a reminder to the whole list.

Another recommendation was to make a catalog of standard stars. Dr. Schmid has not enough time to work on it and since it is quite a huge work, a network effort is much more preferable. It is decided to create a page on the website where we would make a list of papers and websites where (spectro-)polarimetric standard stars are listed.

Dr. Lopez Ariste reads again minutes from the WG1 (observations) discussions at the meeting in Warsaw last year. A point discussed there was to try to set up large scale programs for polarimetric observations. This was discussed at the end of the joint meeting with COST Action MP0905 in October 2012 in Brussels: to gather as a network of specialists to apply for a large program of carrying out (spectro-)polarimetry of AGNs. Everybody enjoyed the idea but nobody took the lead so far. It was suggested that Dr. Lamy, as Chairman, should act as PI for such a proposal. He still considers doing it but lacks time at the moment. The targets for such a large program should probably be more specific and one idea was to observe binary quasars.

Another point raised by Dr. Lopez Ariste is to have a dedicated place to gather algorithms for data reduction. He proposes to maybe organize a dedicated WG1 workshop next year but this has to be discussed again later. Instead of asking people to send their codes and gather them on a portal, we propose to make a list of existing codes that people wants to

share with the community and add the names of the contact persons. This should be much easier to organize.

10. Scientific planning:

We start first with discussing the meetings planned & approved in 2013:

- 1) Session "**polarization and emission lines**" at the **9**th **SCSLSA** in Banja Koviljaca, Serbia, from 13 to 17 May. Dr. Dragana Ilic presents the status of this session & meeting (see file attached). Our COST Action proposed to fund participants who will give a talk during this session. Of course the registration fee cannot be covered by COST money. Dr. Ilic mentions there will be a special topic issue of « Advances in Space Research » with the title "Spectral Line Shapes in Astrophysics and Related Phenomena" published after the conference. Every participant is encouraged to submit a contribution but non-participant can also contribute. Chairman will add this information on the Action website as soon as possible.
- 2) WG4 meeting: « **Spectropolarimetric experiments for remote sensing** » to be organized in Helsinki from 19 to 21 August. Prof. Karri Muinonen gives a short presentation about the status of this meeting. All information will be available next week on the website. Here is a small description of the meeting goals:

Polarized light reflectance measurements are essential to empirically validate physically-based parameterization, to verify selected theoretical models, to provide ground reference data for the calibration of remote-sensing observations, and to support databases needed for data-analysis techniques. Exploitation of acquired experimental information is a valuable tool in target classification and quantification.

In the frame of the proposed workshop we invite researchers conducting reflectance measurements or using the measurement data. The primary focus is on the polarimetric characterization of test sites and targets, covering also angular, spatial and spectral aspects. Measurement techniques, modelling, and other use of measurement data can also be discussed, where related to polarimetric experiments. It is expected, that the workshop could lead to the organization of future joint measurement campaigns, raise a number of important applications and suggest novel retrieval algorithms by combining measured data obtained from different sensors.

Registration will start around April 15 with a deadline on May 31. Expected number of participants is around 35-40. This Action intends to fund approximately 15 participants (12K in the budget) + 3K for local organisation including a dinner. Chairman reminds that COST cannot reimburse VAT on invoices and therefore that the VAT must be paid by another fund from the local organizer.

3) Workshop "**Polarimetry of planetary systems**", to be organized in Florence from 23 to 26 September. It will be mainly a WG1 meeting. Dr. Stefano Bagnulo has provided the following information in name of the SOC/LOC:

Polarimetric techniques are routinely exploited to study the surface structure of the atmosphere-less bodies of our solar system, the atmospheres of Venus, Earth, and of the giant planets. More recently, polarimetry has gained popularity as a potential tool for the study of exo-solar planets. This workshop will be an opportunity to strengthen the community of astronomers interested in polarimetry of the objects of our and other solar systems, and to discuss what are the open questions that can be addressed by polarimetry. This workshop will be also an opportunity to coordinate future projects.

Participants will be invited to give presentations, but high priority would be given to guided discussions. Subjects covered are:

- Observations of asteroids
- Observations of comets
- Observations of centaurs and TNOs
- Observations of the atmospheres of the bodies of our solar system
- Polarimetry of extra-solar planetary systems
- Modeling of the atmospheres of the exo-solar planets
- Auroral/Thermospheric lines
- Observations of bio-signatures
- Modeling of the surface structure of the atmosphere-less bodies of our solar system
- Observations and data reduction techniques
- Current and future instrumentation
- Polarimetry for a larger audience

The workshop will be limited to 40 participants, around 15 of them may get financial support from the COST action (budget of 12K + 30 EUR per participant for the LOC support). The workshop venue has several rooms that will be available to small working groups.

Dr. Bagnulo would like to organize in parallel to this meeting a general talk for a large public (subject and speakers tbd) and also advertise the meeting in local newspapers.

4) **International School on Astrophysical Polarimetry**, organized in Aussois, France, from 3 to 7 June.

We are nearly ready regarding the organization.

We had 33 applications on the website. Among them our COST Action will fund 29 participants. Each participant will receive a grant of 850 EUR which covers one week in full board (room in double occupancy) + around 400 EUR for travel expenses. With the agreement of the COST Office and of the MC by e-vote, we will fund a number of master

students. The remaining 4 students will be funded by a local French grant called Labex that Dr. Barthélemy has just secured (8k€). This will pay for 2 people from India, one from US and one from Ukraine (second person to come from a pre-approved NCI so we could only fund one participant).

Dr. Barthélemy suggests to ask the students to present a poster about their polarimetric activities for those who are doing or have done a PhD. MC agrees. Chairman will send the request by e-mail.

We have 14 teachers for this school. Teachers will be reimbursed like for a normal meeting. However, since the price of a single room for the whole week in full board is of around 500-550 EUR, MC decides to limit the reimbursement of "hotel" expenses + meal expenses to 600 EUR maximum per participant. Of course the travel expenses will be fully reimbursed. This should save a bit of money and also compensate for the fact that we accepted to fund 29 students instead of 20 as planned in the initial budget.

Program is nearly ready and will be available online shortly. Prof. Gabor Horvath cannot make the school and his lecture about planetary atmosphere will be given instead by Dr. Mathieu Barthélemy. There is still an uncertainty about the participation of Prof. Javier Trujillo Bueno (but Dr. Rafael Manso Sainz would give the full lecture if he cannot make it) and of Dr. Daniel Guirado. We will try to finalize the program as soon as possible.

Dr. Barthélemy reminds that it was proposed last year to write a book at the end of the Action (additional COST money is available for that). The goal is not to have a book about the state-of-the-art of polarimetry in astrophysics as such a book is currently made by Prof. Ludmilla Kolokolova and some collaborators. Instead, it should be a book to be used to teach about polarimetry in universities at the Master Degree level. Therefore the lectures given by the teachers at the school could be a first iteration and the teachers will be asked to coordinate several chapters of this book. Of course other people will have to be contacted as some specialists won't be at the school. Also, some pre-existing textbooks could be used and just updated in order to not re-invent the wheel. Dr. Barthélemy will be in charge of coordinating the progress of this book until the end of the Action.

We then continue with 2 new suggestions of meetings to be organized or co-organized in 2013. Their funding via our COST Action will be dependent on the money available during the 2^{nd} installment. Currently these meetings are not planned at all in the budget and from the initial budget we could probably use money between 5 and 8 K \in maximum (not used by other meetings or activities). But since Denmark has signed the MoU after the budget was provided by the COST Office in January, we may in principle receive a additional money during the 2^{nd} installment. The Chairman will also ask for some additional support from the COST Office (between 15 and 20 k \in maximum) if necessary.

1) The first proposition of meeting is by Dr. Arturo Lopez Ariste and consists in a "workshop on coronal polarimetry". Here is some info provided by Arturo regarding this workshop:

The basic info about this workshop is the following: with Silvano Fineschi and colleagues from Toulouse (the main colleague from Toulouse is Laurent Koechlin) we have just started a project to measure the polarization of lines emitted in the solar corona and sensitive to the Hanle effect. Eventually the ultimate goal is to infer magnetic fields in the corona through the analysis of this polarization. Silvano has a nice spectropolarimetric filter and on the French side we would put the site (Pic du Midi) and the coronagraphs.

We had a first kick-off meeting on the second week of January with the core people in the project and drew a timeline of the project. Among the things we wanted to do is to organise a scientific meeting around coronal polarimetry to gather support and also create a community of interested people. A good date for this workshop would be around September 2013.

There are two additional positive points:

- 1) The Pic du Midi coronagraphs are run by an association of amateur astronomers that volunteer to keep the instruments running. The association will be invited to the meeting and therefore we could claim a certain outreach interest for the workshop
- 2) The coronagraphs and the running costs of the instruments and the amateur observers are covered by the patronage of a French financial company called "Fiducial". In that sense this project could also be seen as a collaboration with private companies, although in this case the company does not want to get any benefit from this activity: it is pure patronage.

Location will be in Toulouse. For the dates, Chairman suggests to organize it around end of October / begin of November. Arturo will look for available dates in this period.

If possible, we would like to provide $10-15 \text{ k} \in \text{to}$ support this meeting. Chairman will ask for some extra-funding at the COST Office. Independently of this financial support, the MC vote YES unanimously for the organization of this workshop.

2) The second proposition for a new meeting is by Prof. Andreas Eckart to co-organize the meeting « **The Galactic Center Black Hole Laboratory** », a meeting already organized in Istanbul, Nov. 19-22, by COST Action MP0905 « Black Holes in a Violent Universe ». Andreas gives a short presentation about the goals of the meeting and how our Action about polarimetry would fit in this context (see file attached). Organizational aspects will be handled by the other COST Action as well as most of the funding. Our COST Action would provide additional funding and advertisement. If only 5k€ are available, 3 to 5 experts would be invited with this grant. If we can provide 10-15 k€, more participants from our Action could be funded. Chairman will again ask the COST Office for an additional 10-15 k€ to support this joint meeting. Independently of the

financial support, the MC vote YES unanimously for the co-organization of this conference.

We finally discuss already some of the meetings/workshops that will be organized in 2014:

1) WG3 meeting « **Polarimetric techniques & technology** ». Dr. Frans Snik is in charge of the organization. The meeting will be organized in Leiden around March-April 2014. Dr. Snik will apply this meeting as a Lorentz conference. Good point is that if selected, most of the local organization is provided by people at the Lorentz center. A proposal must be written and submitted by May 15. The goal of the meeting is the following:

The general goals for this meeting are to bring together up to 55 people from all kinds of research fields, who all somehow measure polarization to obtain crucial information about anything remote. So from astronomy to biomedical applications, from atmospheric remote sensing to target detection, etc. It should really be a workshop, including discussions, splinter sessions, social events, etc. We'd also like to involve industry, to stimulate discussions on the application of new polarization technology. In the end, we should all learn from each other, and hopefully start up new collaborative projects.

Request for funding is about 20 k€. This of course will be discussed and voted again when the 2014 budget will be available. This meeting was planned from the beginning (included in the MoU) so the MC does not need to vote for its organization (but everyone supports it).

2) WG2 meeting "**The physics and modeling of polarization in astrophysics**". This is a proposition of meeting by Prof. Javier Trujillo Bueno and by Dr. Jiri Stepan. Prof. Javier Trujillo Bueno could not come to this MC meeting so instead Chairman reads information sent to him by e-mail. Below is a copy of this e-mail:

Place: Prague, Czech Republic

Tentative dates (to be confirmed):

- (a) If the workshop duration is 5 days: May 5-9, 2014
- (b) If the workshop duration is 3 days: May 5-7, 2014

SOC: Javier Trujillo Bueno (Co-Chair; IAC), Jiri Stepan (Co-Chair; AIAS), Landi Degl'Innocenti (Univ. Firenze), Michal Dovciak (AIAS), Roberto Casini (HAO), Luca Belluzzi (IRSOL), and several other colleagues to be decided

LOC: Jiri Stepan (Chair), Petr Heinzel, Jan Jurcak, Stanislav Gunar Venue: Vila Lanna (which belongs to the Academy of Sciences)

Preliminary estimations:

Concerning accommodation, the cost in the Vila Lanna is about 50 Eur for a single room and 80 Eur for a double room.

Since Ondrejov Institute is an institute of the Academy of Sciences (who is the owner of the place), we could perhaps get a 50 percent discount (this still needs to be confirmed due to the fact that the funding will be provided by our COST action). The prices would be, approximately, the following:

Conference hall rental (8 hours per day for 5 days): 1040 Eur One coffee break (per person): 3 Eur

Lunch (per person): 9 Eur

Conference dinner (per person): 20 Eur

The conference dinner can be, of course, organized at a different place and funded individually by the participants.

Structure of the workshop: we plan to have sessions, each one with an introductory talk followed by keynote talks with an in-depth presentation of key research problems. Much emphasis will be given to scientific discussions after each talk, round-tables, working groups, etc.

Tentative topics:

- (1) Physical mechanisms that produce/modify polarization
 - (a) Line polarization: Scattering, Hanle effect, Zeeman and Paschen-Back effects, level crossings
 - (b) Continuum polarization: Rayleigh and Thomson scattering
 - (c) Collisions: impact polarization, depolarizing collisions
 - (d) Small particles: Mie scattering
 - (e) Relativistic effects in radiation scattering
 - (f) Solid surfaces: reflection, refraction
- (2) The Quantum Theory of Polarization
 - (a) Complete redistribution
 - (b) Partial redistribution
 - (c) *J-state interference*
 - (d) Hyperfine structure
- (3) Numerical Radiative Transfer
 - (a) Monte Carlo methods
 - (b) Iterative methods: Operator splitting, multigrid methods, parallelization strategies
 - (c) Formal solvers of the Stokes vector transfer equation
 - (d) Ray tracing
- (4) Self-consistent modeling of polarization in astrophysical plasmas
 - (a) One-dimensional radiative transfer modeling with complex atoms

- (b) Three-dimensional radiative transfer simulations
- (c) CRD vs. PRD radiative transfer modeling
- (5) The inversion problem: from the observed polarization to the physical conditions
 - (a) LTE and non-LTE inversions
 - (b) Public inversion codes
 - (d) Bayesian techniques
 - (e) Forward modeling versus inversion approaches for deciphering solar/stellar surface magnetism

MC votes YES unanimously for the organization of this meeting. A provisional funding of $15 \text{ k} \in \text{is planned}$ (but again as to be discussed in detail when 2014 budget will be available).

Two remarks: 1) Chairman should ask about the expected number of participant \rightarrow Answer from Javier: between 25 and 50. 2) some non-solar physicists should be included in the SOC as currently there are mainly solar physicists

3) **ASTROPOL 2014**: this is a co-organization of a big meeting (100-150 participants expected). This meeting was postponed last year because we were not ready. Dr. Mathieu Barthélemy is now in charge of the LOC and Dr. François Ménard in charge of the SOC. Location is still in Grenoble at MINATEC (as was planned last year).

Dates: Dr. Ménard is not available during the week of June 16-20 so Mathieu proposes either the week before (June 9-13) or after (June 23-27). Prof. Karri Muinonen is in favor of the 2nd option as it is the week before the meeting **ACM** (**Asteroids, Comets & Meteors**) 2014 which will be organized in Helsinki and for which he plans to organize a special session about polarimetry (see below). However, Prof. Fineschi tells us that during the week of June 23-27, there will be a **SPIE symposium on astronomical instrumentation** in Montreal and he plans to organize a conference on polarization in astronomy. So this week should be avoided if possible. During the week of June 9-13, there will be the annual meeting "**Cool Stars**" and many stellar polarimetrists have already planned to be there. So this week should be avoided as well.... Chairman suggests then to look for the week before (June 2-6) and check if MINATEC facilities are available for these dates. Dr. Barthélemy will do that next week and inform the MC of the possibilities. The MC will then vote quickly by e-mail for one of these 3 (2?) weeks. Formation of LOC/SOC + a website and advertisement should start before end of April.

Budget should be similar to the school this year and of around 35k€. This should be able to fund approximately 40 to 45 participants including a few experts from non-COST countries.

4) Prof. Mark Pearce proposes to organize a meeting "Astrophysical X-ray polarisation » in Stockholm, after discussion with other MC members Prof. Enrico Costa and Prof. Juri Poutanen. The goal would be to cover all aspects of X-ray and Gamma

polarimetry. We expect 20-40 participants and dates would be sometimes in Fall 2014 before the snow comes. MC votes YES unanimously for the organization of this meeting.

5) Finally, Prof. Karri Muinonen proposes to organize a special session about polarimetry during the (non-COST) meeting ACM 2014 in Helsinki, from June 30 to July 4. This meeting is organized every 2 year. Our COST Action would support the organization of this special session by funding a small number of participants that would contribute by giving a talk or presenting a poster during this session. We would apply the same rules as those we use for the session « Polarization and emission lines » during the 9th SCSLSA in Serbia this year. MC votes YES unanimously for the organization and support of this session.

Please also note that Dr. Bagnulo (and collaborators) have submitted a proposal to have an IAU symposium about polarimetry. If selected, dates would be in March 2014. This is not a COST activity but should be promoted on the website and on the diffusion list.

Final discussion is about outreach activities and the website:

- ESO Movie: Dr. Frans Snik has made a preliminary script and discussed with ESO. ESO is interested to produce a movie about spectropolarimetry of exoplanets. A preliminary agreement was obtained on a budget (16.5 k€, no VAT as ESO is not subject to VAT). We tried to spend the available COST money from last year (around 30K€) but due to administrative problems at IASB, we could not do it. It was decided to not include it in the initial budget for 2013 but to request for additional money during the 2nd installment which we will do. The purchase order has now been sent to ESO and we hope the movie can be done in the next few months. Script will be improved in cooperation with Dr. Snik. It would be nice if this movie could be presented during the APC conference in Reykyavic.
- Outreach activities are a bit frozen at the moment. A mailing list was created last year with people interested to participate but there has been no real feedback so far. Dr. Svetlana Berdyugina is in charge since the Kick-Off meeting in Brussels but has not been reactive to e-mails so MC decides that a new person should be nominated instead. Only Dr. Frans Snik has been very active but since he's already leader of WG3, he cannot add this additional charge of work. Dr. Daphne Stam is candidate and elected unanimously by the MC.

Chairman will send a reminder to the outreach list in order to start completing the structure already available on the website for months. We need to add more explanations, movies, pictures, etc ... Somebody suggests to use some images from Prof. Gabor Horvath's books if there is no problem with copyrights? Another possibility is to use some parts of the excellent book "Polarized light in Nature" by G.P. Konnen (1985).

11. Requests for new members:

Reminder from Chairman: to join our Action network, participants from the 22 COST countries which have already signed the MoU have just to send me an e-mail and/or register on the website. For the new COST countries, the MC must vote for their adhesion and Chairman sends the result of the vote to the SO.

12. Non-COST applications to this Action:

Chairman reminds briefly the rules for participants from non-COST countries to join the network. It is based on institutions and not countries. Participants should first send the Chairman a motivation letter. The Chairman can then initiate the process in e-COST with the agreement of the SO. After filling in some fields in e-COST to describe the benefits for the COST Action and from the applicant to join the network, the MC must vote for adhesion of this institution. The next 2 steps are votes from the DC and finally vote from the CSO. Since the latter gathers only 3 times per year, the length of the process of a NCI to join a COST Action can vary typically between 1 & 4 months. Currently we have one application from Stephen Marsden (Australia) for University of Queensland.

Chairman explains that pre-approved NCIs at the time of the MoU submission must be voted by MC first before we officially add them to the network in e-COST. Chairman was not aware of this rule last year and as a consequence, the STSM from Dr. Belskaya to visit Dr. Bagnulo was cancelled because her NCI in Ukraine was not pre-approved before the mission. The money was paid with the overheads of IASB, which luckily was not a problem. MC should vote quickly for those NCIs which were pre-approved and add them in the system such that no more similar mistakes are done.

Chairman also reminds that 4 countries have bilateral agreements with COST, namely Australia, Argentina, South Africa and New Zealand. If a NCI from these countries is added to our network, STSM to or from these NCIs and/or participation to meetings from members of this NCI can be funded by these countries with some specific grant and not with the money from our COST Action.

13. Any Other Business:

None

14. <u>Location and date of next MC/SC meeting</u>:

We should not have another stand-alone MC meeting like we had this year in Vienna. So for next year MC proposes to have the annual MC meeting during the meeting in Prague during the first week of May.

The SC meeting in the 2nd part of 2013 will be held during the meeting in Florence at the end of September.

15. Summary of MC decisions:

This section is instead replaced by a list of actions to be taken following decisions taken during this MC meeting:

- Release of the STSM call for the 2^{nd} part of the year : Hervé Lamy \rightarrow **Done**
- Renting of some professional video material from Grenoble to make short video interviews of female scientists during international school : Mathieu Barthélemy
- Contact Dr. Yael Naze from University of Liège for outreach/gender balance activities: Hervé Lamy
- Distribute advert for position as SO of MPNS for 10 months : Hervé Lamy → **Done**
- Send short summaries (1 page) of WG activities since last WG meeting in Warsaw : Arturo Lopez Ariste, Frans Snik, Javier Trujillo Bueno, Daniel Guirado
- Create a web page with a catalog of standard stars : Hervé Lamy
- Create a web page with lists to existing codes to be shared with the scientific community : Hervé Lamy
- Add information on website about special topic issue in "Advances in Space Research" about "Spectral Line Shapes in Astrophysics and Related Phenomena" : Hervé Lamy, Dragana Ilic → **Done**
- Create website for WG4 meeting "Spectropolarimetric experiments for remote sensing": Hervé Lamy, Karri Muinonen & LOC → **Done**
- Create website for WG1 meeting "Polarimetry of planetary systems" : Hervé Lamy, Stefano Bagnulo & LOC
- Organize a public conference + press release for local newspapers during WG1 meeting in Florence : Stefano Bagnulo & LOC
- Organize travels for non-COST participants to the school with LABEX funding : Mathieu Barthélemy
- Ask students from the school to present posters of their activities : Hervé Lamy → **Done**
- Coordination of the writing of a book for Master Level at Uni following the school in Aussois : Mathieu Barthélemy
- Ask COST Office for additional money during the 2nd installment for new workshop "Coronal Polarimetry" and for the Joint Meeting in Istanbul with COST Action MP0905 → Hervé Lamy

- Proposal for a Lorentz conference : Frans Snik + LOC
- Include non-solar physicists in the SOC for the meeting about modeling in Prague → Javier Trujillo Bueno + all for suggestions
- Organization of ASTROPOL 2014 (SOC/LOC/Website) + check with MINATEC about possible dates in June 2014 : Mathieu Barthélemy (**urgent!**)
- MC e-vote for the final choice for the dates of ASTROPOL 2014
- ESO movie : send purchase order : Hervé Lamy → **Done**
- ESO movie : see with COST Office for additional money (around 15K) : Hervé Lamy
- ESO movie : coordination of interaction with ESO staff to improve initial script and further steps : Frans Snik and Hervé Lamy
- Outreach activities : send a reminder to the outreach list : Hervé Lamy
- Outreach activities : coordinate actions : Daphné Stam
- 16. Meeting ends at 16:00, perfectly on time.