

# Report of the Lorentz Center Evaluation 2018

**Lorentz center**  
Workshop @Snellius

**Statistical Inference for Stochastic Process Models in Weather and Climate Science**  
10 - 13 September 2018, Leiden, the Netherlands



**Scientific Organizers**

- Michel Crucifix, Université Catholique de Louvain
- Shota Gushkiy, Leiden University
- Frank Kwak, University of Exeter
- Peter Spreij, University of Amsterdam / Radboud University

**Topics**

- Bayesian and Frequentist Methods
- Climate Sensitivity
- Nonlinearity and Chaotic Dynamics
- Paleoclimate Reconstruction
- Subgrid-Scale Processes
- Uncertainty Quantification

The Lorentz Center organizes international workshops for researchers in all scientific disciplines to aim to create an atmosphere that fosters collaborative work, discussions and interactions. For registration see: [www.lorentzcenter.nl](http://www.lorentzcenter.nl)

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[www.lorentzcenter.nl](http://www.lorentzcenter.nl)

**NIAS**

**NIAS-Lorentz Theme Group 2016/2017  
CALL FOR APPLICATIONS**



The NIAS-Lorentz Program is looking for a researcher who wants to set up and coordinate a NIAS-Lorentz Theme Group (NLTG).

A NLTG is an international group of up to 5 researchers who do cutting-edge research that bridges the Humanities and/or Social Sciences with the Natural Sciences and/or Technology.

**WHAT WE OFFER**

- 3 or 5 month residential fellowships at the Netherlands Institute for Advanced Study in the Humanities and Social Sciences (NIAS), including stipends or teaching replacement grants.
- 1-week Lorentz Center workshop
- organizational support by NIAS & Lorentz Center

**YOUR PROFILE**

- at least 5 years postdoctoral research experience
- affiliation with a Dutch university or research institute

**PROCEDURE**  
Contact: Nick den Hollander ([nick.den.hollander@nias.knaw.nl](mailto:nick.den.hollander@nias.knaw.nl))  
Information: [www.nias-lorentz.nl](http://www.nias-lorentz.nl)  
Deadline: 1 March 2015 (Pre-Proposal)

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[www.lorentzcenter.nl](http://www.lorentzcenter.nl)

**CALL FOR APPLICATIONS**

**CECAM-Lorentz Workshop 2017**

**cecam Lorentz center**

CECAM and the Lorentz Center are looking for scientists who want to organize the fourth annual CECAM-Lorentz Workshop, to be held at CECAM, EPFL Lausanne, Switzerland.

The CECAM-Lorentz program plans to host a leading-edge workshop in computational simulation and modelling and its applications. The topic is open. This year we would like to encourage applications at the intersection between molecular simulations and applied mathematics.

**What we seek**

- an innovative scientific programme, that takes us beyond our current boundaries
- an open and interactive format, with few lectures

**What we offer**

- a 5-day workshop for up to 25 people in the second half of 2017
- travel and accommodation reimbursements and other organisational costs
- a professional support organisation

**Procedure**

- a 1-page expression of interest by 1 September 2016
- a full application by 15 October 2016
- final decision in November 2016
- submit applications to: [domenec.tibessy@epfl.ch](mailto:domenec.tibessy@epfl.ch)

**Information**

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# REPORT OF THE LORENTZ CENTER EVALUATION 2018

## 1. Summary

In early 2020, the Dutch Research Council (NWO) and Leiden University appointed an external assessment committee consisting of distinguished members of the research community to conduct an evaluation of the activities of the Lorentz Center, which organizes a range of international workshops across the full range of scientific disciplines with a view to stimulating growth and innovation through creative collaboration. Leiden University and NWO provide up to 80% of funding for the Lorentz Center.

With reference to specific Terms of Reference (see Appendix 2) based on an adapted Standard Evaluation Protocol for research assessment in the Netherlands, the committee reached its conclusions based on extensive documentation and on-site interviews with all stakeholders: the Center's management, its funders, workshop organizers, participants and advisory board members (see Section 4 below). Its impressions were overwhelmingly positive, rating the Lorentz Center's performance as world-leading/excellent in terms of scientific quality, impact, quality of procedures, organization of workshops, societal impact and relevance. Despite concerns about the Center's uncertain future as regards continued funding, accommodation and evolution of governance, the committee rated its viability as very good.

In addition to this commendation of its existing work, the committee recommended that the Center should seek to achieve greater flexibility by exploring new activities and workshop formats, while adapting its governance structures in line with its growing and evolving character. More specifically, it recommended the Center to take practical steps to enhance its current performance in terms of sustainability, diversity, digital follow-up and placing greater emphasis on underdeveloped areas such as the humanities and the social, medical and chemical sciences, as well as reaching beyond the academic world to engage members of wider society (citizen science, commercial knowledge transfer). The committee also called on NWO and Leiden University, in their role as funders, to safeguard the Center's existence by providing more structural, formalized continuity of support over a longer period and exploring a more strategic approach with a view to realizing ambitions for the future.

### Scores

Scientific quality and impact	1	World leading/excellent
Quality of the procedures and the organization of the workshops	1	World leading/excellent
Societal impact and relevance	1	World leading/excellent
Viability	2	Very good

## 2. The Lorentz Center

### *Mission*

The Lorentz Center is a national institute for international workshops in all scientific disciplines. The driving force of the Lorentz Center is to advance science by initiating and stimulating new scientific collaborations and in facilitating interactions between highly diverse groups of researchers with different seniority, gender, culture and nationality.

### *Lorentz Center Workshop Concept*

At the Lorentz Center, groups of researchers are brought together to assess the status of a field and share results, challenges, methods, and views on future directions of research. Workshops organized by researchers with different scientific backgrounds are welcomed, as well as workshops involving a single discipline. Workshops can be proposed and organized by any researcher in any field of research, at any professional level, and from any country. Groups of organizers from institutions in different countries and from both the public and private sectors are encouraged. In short, the Lorentz Center is committed to stimulating diversity in all its aspects.

The aim is to evaluate all applications rapidly. Proposals for workshops are peer-reviewed by the Scientific Advisory Boards. Two venues are used to accommodate workshops of different sizes: Lorentz Center@Oort and Lorentz Center@Snellius, suited for groups of up to 55 or 25 participants respectively. Both venues are located within the Science Faculty at Leiden University and provide personal working space for all

participants in addition to standard lecture theatre and break out room facilities. The workshops usually last five days, allowing participants to discuss their research in depth, through a combination of informal talks, working sessions, and discussions. The financial and organizational support provided by the Lorentz Center allows participants and organizers to focus on their research. The Lorentz Center also welcomes a variety of meeting formats or combinations of formats, such as study groups, consortia meetings and industrial teams.

### **3. The External Assessment Committee**

#### *Appointment*

The Dutch Research Council (NWO) and Leiden University appointed an external assessment committee of distinguished researchers with a broad scientific perspective and experience in relevant scientific administration. In addition, several committee members have attended Lorentz workshops in the past or have been involved with similar centres abroad. The composition of the committee can be found in Appendix 1. At the start of the meeting, the committee was addressed by Prof. Niek Lopes Cardozo, Chair of NWO Domain Science and member of the NWO Executive Board.

All members of the external assessment committee signed a declaration in compliance with the Code Strategy and Policy Advice<sup>1</sup>, a standard procedure for NWO evaluation procedures. The aim of the Code is to ensure that the committee members pass judgment without bias, personal preference or personal interest, and that judgment is reached without undue influence from the Lorentz Center or other stakeholders. Any existing professional relationships between committee members and the Lorentz Center were reported in advance. The committee concluded that there was no risk of bias or undue influence.

### **4. The organization of the evaluation**

The committee based the evaluation on its Terms of Reference (ToR). These can be found in Appendix 2. The ToR is based on the Standard Evaluation Protocol 2015-2021 (SEP)<sup>2</sup> for research assessment in the Netherlands, which includes the scoring of relevant criteria. The evaluation criteria are based on the SEP but have been adapted to the specific aims of the Lorentz Center. The ToR were approved by the executive boards of both NWO and Leiden University. The evaluation committee noted that the current SEP is not particularly well-suited to the evaluation of an organization such as the Lorentz Center, because the Lorentz Center is not focused on research but on activities to enhance research.

The procedure for the evaluation is described in the ToR. The main part of the evaluation consists of the site visit by the external assessment committee to the Lorentz Center. Before the site visit, the committee received documents to prepare for the visit. The list of the documents is given in Appendix 3.

The site visit took place on 7 and 8 January 2020. As one of the members of the committee was not able to participate on 7 and 8 January, a second site visit was organized for him and for the chair of the committee on 17 January. The programmes for the two site visits can be found in Appendix 4. A list of all participants in the site visits can be found in Appendix 5.

The site visit began with a closed session during which the committee members shared their initial impressions, the areas for enquiry and a number of potential questions. Their first meeting was with the Center's management and included a brief overview presented by Prof. Doelman, highlighting some of the priorities from the Lorentz Center's point of view. This was followed by an informal meeting with workshop participants. At dinner, the committee members discussed some of their initial conclusions from the day's sessions.

The second day started with a joint meeting attended by delegations from the executive boards of NWO and Leiden University. The committee then met with a selection of workshop organizers, followed by a session with several chairs of the scientific advisory boards. After these meetings, the committee held a

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<sup>1</sup> <https://www.nwo.nl/en/common/subsidies/funding-process-explained/code-strategy-and-policy-advice>

<sup>2</sup> <https://www.vsnul.nl/files/documenten/Domeinen/Onderzoek/SEP2015-2021.pdf>

closed session to discuss their findings in light of the evaluation criteria. For each criterion an initial score was determined. In addition, the committee members discussed the recommendations and conclusions to be stated in their advisory report.

The second site visit began with a closed session at which the committee member was updated on the procedure. This was followed by a meeting with a workshop organizer, who had also been involved in the first site visit. In response to a suggestion made by the committee in the course of the first site visit, a meeting was arranged with the chair of the general advisory board and the chair of the evaluation committee and the committee member. An additional session was organized with the Lorentz Center management, which also gave the management the opportunity to reflect on the preliminary conclusions from the first site visit. A meeting with a delegation of Lorentz Center staff followed. The site visit ended with a closed session to revisit the scores from the first site visit and to determine whether any additional recommendations had arisen from the second site visit. The scores remained unaltered, while the recommendations were refined in the light of insights gained during the additional meetings on the second site visit.

Once the site visits had been completed, the next step in the procedure was the compilation of the report on behalf of the committee. When the committee had agreed on this report, the Lorentz Center was given the opportunity to comment on any factual inaccuracies the report might contain. The committee then decided whether to incorporate the Center's comments. The final version of the report was submitted to the executive boards of NWO and Leiden University.

## **5. Evaluation criteria, conclusions, recommendations**

In its report, the committee addressed each of the four evaluation criteria provided in the Terms of Reference, based on its discussion of the written documents it received and the meetings that took place during the site visits. Below, each criterion is described qualitatively, and accompanied by a numerical score established using the SEP.

### **1. Scientific quality and impact**

In the Terms of Reference, this criterion is defined as follows: *"The committee assesses the quality and impact of the scientific activities of the Lorentz Center, i.e. how successful it is in stimulating new research developments, how it covers the different scientific domains, how well it succeeds in building bridges between scientific and/or scholarly (sub)disciplines and how successful it is in stimulating creative interactions between scientists."*

In reviewing the Lorentz Center in the light of this criterion, the committee used the survey results of attendees and organizers. The interviews with the workshop organizers and the chairs of the committees also delivered valuable input for this criterion.

The results of surveys taken among both attendees and organizers show that the workshops at the Lorentz Center are highly valued. This appreciation was also expressed during the committee's meeting with a delegation of workshop organizers. One of the organizers emphasized the Center's prestige and international recognition: *"90% of the people I invite to a Lorentz Center workshop will accept and that is mainly because it is a Lorentz Center workshop."* The organizers were clear that the stimulating environment that is created during the workshops leads to creative interactions, which in turn leads to new research. The workshops generate a sense of creative chaos in a controlled environment.

Another important result of the workshops, especially for early career scientists, is the opportunity to build up a broader scientific network. This was mentioned by both the organizers and the chairs of the committees. This is achieved not only through workshops within disciplines, but also through workshops across disciplines.

The committee appreciates that it is difficult to measure the output and impact of the workshops in terms of publications and grants, and recognizes that this is not the focus of the Lorentz Center. Such standard metrics are less well-suited to measuring the effects of the Center's activities, while the current level of funding does not allow the Lorentz Center to follow up on relevant outcomes of the workshops. Nevertheless, the committee did see evidence of valuable output from the workshops. One prime example given by the organizers was the success of the FAIR data principles: these were initiated during a Lorentz Center Workshop and are now used all over the world. The workshop organizers made a number of suggestions as to how the Lorentz Center might further benefit participants by facilitating follow-up to workshops. Examples given included interactive facilities such as blog services or slack workspace.

The committee believes that in the long run, funders will want to see more quantitative measures of the quality of the workshops, particularly in terms of new research ideas resulting from the workshops, potential future grant applications or evidence of collaborations. The Center should be encouraged to find ways to document its role in stimulating themes and directions for future research agendas. This is a desideratum which, however, does not reflect on the quality of the Lorentz Center over this review period.

It is clear to the committee that the workshops hosted by the Lorentz Center cover many different disciplines, with slightly more prominence given to the original disciplines of physics, astronomy and mathematics. The committee also gleaned from the list of workshops that fewer workshops are organized in the humanities, chemical sciences and medical sciences. This is also acknowledged by the Lorentz Center management and the chairs of the disciplinary advisory boards. The Center and the boards have taken several actions in this regard.

One example is the great effort the Lorentz Center has gone to since its previous evaluation in 2014 to incorporate the Social Sciences and Humanities (SSH) domain into its programme. This has been successfully achieved, among other things by introducing a SSH champion. This has created real added value, complementing the Lorentz Center's traditional strength in the natural science disciplines. So far, the Social Sciences are more strongly represented in the Center's activities than the Humanities. Further strengthening of the workshops in the humanities can possibly be achieved through internationalization, most notably by actively engaging with area studies such as the African Studies Centre.

Action was also taken with regard to the chemical sciences: a competition for workshop proposals was organized. This resulted in multiple submissions, one of which was awarded an actual workshop. Most of the other submissions were also followed up and resulted in new workshops at a later date. This raised the profile of the Lorentz Center significantly within the chemical sciences community.

The committee also concluded that the workshop format presents particular difficulties in relation to the medical sciences, since the vast majority of scientists in this sector combine their research with patient duties. Proposals to address this issue and to boost the number of workshops in the medical sciences included the possibility of shortening the duration, planning activities outside office hours and ensuring that these workshops are recognized as accredited activities for professional certification.

A wide range of monodisciplinary and also interdisciplinary workshops are organized by the Lorentz Center. Monodisciplinary workshops are still very important, but the committee appreciated the Lorentz Center's growing interest in staging multidisciplinary and interdisciplinary workshops. In the next phase of the Lorentz Center, these developments could be further expanded and accelerated. This is also relevant in light of the societal challenges which call for solutions that involve expertise across a range of disciplines. Societal challenges are of growing importance to science in the Netherlands, in connection with policy initiatives such as the Top Sectors and the Dutch Research Agenda (Nederlandse Wetenschapsagenda, NWA). NWO's management has outlined a vision in which the Lorentz Center

could play a role in bringing together interdisciplinary and transdisciplinary consortia in preparation for submitting a research proposal for the schemes that exist under the banner of the Dutch Research Agenda.

It is clear to the committee that the Lorentz Center workshops are successful in stimulating new research developments. They do so by creating a stimulating environment that sparks creative interactions. The workshops build bridges within and between scientific disciplines. In conclusion the committee judges the quality and the impact of the Lorentz Center to be world-leading/excellent.

The committee has the following recommendations with a view to ensuring the future sustainability of the high quality currently in evidence:

- Invest in supporting more workshops from the chemical sciences by achieving greater exposure within the chemistry community.
- Invest in attracting more medical sciences workshops e.g. by introducing new workshop formats and accreditation for professional certification.
- Actively pursue greater involvement of SSH, and in particular the humanities, within the framework of NIAS-Lorentz.
- Engage in knowledge production with a global perspective by, among others things, engaging with a wider range of international scholars.
- Explore possibilities of developing more multidisciplinary and transdisciplinary workshops with a variety of formats in the light of societal challenges and research opportunities under the banner of the Dutch Research Agenda.

## **2. Quality of the procedures and the organization of the workshops**

In the Terms of Reference this criterion is defined as follows: *“The committee assesses the organizational aspects of the workshops from the assessment of a workshop proposal to the execution of the workshop and the evaluation after the workshops.”*

The committee appreciates the Lorentz Center’s consistent adherence to their principle of *“You do the research, we do the rest”* in organizing its workshops. Even though in many cases the staff members of the Lorentz Center are not experts in the field covered by a particular workshop, they are highly capable and motivated when it comes to assisting the organizers in shaping the workshops with a strong focus on reaching its defined goals. The committee is impressed by the staff’s enthusiasm when dealing with all stages of the preparation for workshops. The organizers are fully aware that these interactions start at an early stage in the process. Organizers are given the opportunity to improve their proposal in close consultation with staff of the Lorentz Center before an application is finally submitted, resulting in high success rates. This approach also makes for a highly effective application procedure.

The Lorentz Center works with Scientific Advisory Boards which are mainly monodisciplinary, with the exception of the intrinsically multi-disciplinary Computational Sciences Board and the NIAS-Lorentz Advisory Board. The NIAS-Lorentz Advisory Board covers the Social Sciences and the Humanities as a whole. This is a very broad scientific area. The committee would advise the Lorentz Center to explore the option of dividing the NIAS-Lorentz Advisory Board into two boards: one for Social Sciences and one for the Humanities. This would create a better coverage of both fields.

The committee looked into the question of how multidisciplinary proposals were handled. The chairs of the advisory boards explained that all relevant boards were consulted on multidisciplinary or interdisciplinary proposals. Both the organizers of workshops and the chairs of the advisory boards confirmed that this procedure is effective. Consulting boards from the various relevant disciplines provides a broader insight, as each committee always contains an expert in the disciplinary part of the proposal.

The participants and organizers did have some minor misgivings as regards obtaining the funds they needed for the workshops, stating that they would have appreciated guidance from the Center in directing them towards funding possibilities. This was especially true for workshops with many attendees from the Global South and early career scientists. The Lorentz Center management pointed out the availability of a diversity fund, an initiative which met with an enthusiastic response from the committee. However, on further investigation it transpired that this fund was not well known among the organizers and participants. Better communication would make the diversity fund more effective and help increase diversity in the workshops.

The facilities provided for the workshops are very much appreciated by organizers and participants alike, especially the opportunity to work in groups while also having a work space for ongoing work. The organizers suggested that more digital facilities could be provided for use both during and after the workshop. This would not only enhance cooperation during the workshop but also create follow-up options afterwards. The committee pointed out that, with regard to sustainability and reducing the ecological footprint, digital facilities could also reduce travel.

To enhance sustainability, the committee suggests that researchers who fly in could be supported in undertaking additional activities during their stay in the Netherlands, for example attending meetings at universities, giving talks, participating in public awareness events.

Overall, the committee is enthusiastic about the organizational support provided for the workshops during the whole process. The Lorentz Center clearly embraces the motto *"You do the research, we do the rest."* Although there are some minor reservations, the committee concludes that the organization of the workshop – from assessment, through execution and right up to evaluation – should be judged as world-leading/excellent.

The committee has the following recommendations:

- Explore the option of dividing the NIAS-Lorentz Advisory Board in two boards: one for Social Sciences and one for the Humanities.
- Improve the communication about the existence of the diversity fund and its conditions of use; increased diversity amongst the participants is desirable and the fund can play an important role in involving more scholars from the Global South.
- Think about the possibility of more flexibly balancing the total external funding required across a range of different meetings.
- Try to fulfil workshop participants' wish to have digital facilities for use both during and after the workshop.
- Think about possibilities to facilitate participation via digital means, so as to reduce the ecological footprint.
- Encourage and support researchers flying in from all over the world to attend Lorentz Center workshops to take part in more activities while they are in The Netherlands with a view to increasing sustainability.

### **3. Societal impact and relevance**

This criterion did not form part of the previous SEP and constitutes a modernization of the SEP protocol. The committee recognizes the work undertaken by the Lorentz Center in an effort to create societal impact and relevance. This is testament to the Center's flexibility and its ability to anticipate relevant developments in society.

While not all of its workshops have, nor should have, direct societal impact and relevance as a key driver, the committee is pleased to note that the Center has employed several methods to create, promote and enhance societal impact and relevance. Salient examples include:

- The public lectures organized and planned by the Lorentz Center in cooperation with the Dutch National Museum for the History of Science and Medicine (Rijksmuseum Boerhaave), which also supports the Museum's aim of improving the support base for science throughout Dutch society.
- The development of workshops in which questions submitted by companies are addressed by a group of mostly young researchers under the guidance of an experienced researcher, with the aim of providing an answer within a week. These include ICT with Industry, Life Science and Physics with Industry.
- The enrichment of workshops by the participation of non-academics (citizen science), an idea already explored in several workshops.
- The Center's newly adopted open space formula, in which the Center's staff facilitates workshops that focus on achieving a common goal based on complex challenges (e.g. forming a consortium for a research proposal).

The committee is enthusiastic about these initiatives and appreciates the Lorentz Center's flexibility in expanding its repertoire to include open space sessions and citizen science sessions to which non-academics are invited. It observes, however, that a more flexible approach to workshop formats would help in terms of reaching other stakeholders, such as citizens, businesses or government agencies. These might include shorter workshops or workshops held outside office hours.

The Lorentz Center maintains a complete overview of overlapping workshops and their outcomes, even though they are held at different times. The Center could add value by following up on workshops or by bringing together communities formed at different workshops to explore related themes. One suggestion made by the committee is to enlist the services of a knowledge transfer officer to provide support in creating impact. This officer could also play a key role in the scientific and societal follow-up of workshops.

During the interview with the stakeholders, NWO and Leiden University, it became clear that the Lorentz Center has the potential to make a major contribution towards meeting societal challenges through its workshops. The challenges society is facing encompass broad problems which call for a transdisciplinary collaboration. In this light, the committee advises the Center to organize more workshops of this kind.

The committee is positively surprised by the amount and the range of activities taken up by the Lorentz Center with a view to creating societal impact and relevance. This demonstrates the Center's flexibility and its ability to anticipate relevant societal developments. In conclusion, the committee rates the societal impact and relevance of the Lorentz Center as world-leading/excellent.

The committee has the following recommendations:

- Use more flexible workshop formats to attract and involve more stakeholders within and outside the academic community.
- Consider the ongoing importance of incorporating more transdisciplinary collaboration into the programme in light of today's societal challenges.
- Enlist the services of a knowledge transfer officer for workshop follow-up with the aim of creating both scientific and societal impact and relevance.

#### **4. Viability**

In the Terms of Reference this criterion is defined as follows: *"The committee assesses the extent to which the Lorentz Center is equipped for the future, based on a strategy to deal with external developments. The committee benchmarks the impact and relevance of the Lorentz Center against similar centres/institutes. The committee assesses whether the quality and quantity of the Lorentz Center's activities are in balance with its funding."*



The Lorentz Center currently organizes approximately 80 workshops a year based on the budget it receives from NWO and Leiden University. This budget has not been increased in line with inflation or in response to other factors. Nevertheless, the committee is of the opinion that the quality of the workshops remains excellent, as indicated by the scores given for the first three criteria.

The Lorentz Center depends for about 80% of its income on its two major funders: NWO and Leiden University. Additional funds come from the workshop organizers and go towards the organization of their specific workshops. The fact that the remaining funds have to be obtained from external sources makes the organizers dependent on additional external factors, such as the national research budget or the financial stability of the university. The committee is concerned that this source of income is essentially beyond the control of the Lorentz Center.

The funders have committed to the Center until 2020. At the moment of the review, neither funder had given a clear commitment beyond this date. The management of the Lorentz Center clearly expressed that it did not expect the SSH budget from Leiden University to last. The university's executive board had yet to express a clear position on the Lorentz Center, although it was certainly willing to ensure its housing.

The Lorentz Center's management also regarded the NWO funding as uncertain. In the committee's conversation with the NWO board, it emerged that the board was open to continued funding but that additional funds were only available for more strategic workshops, such as those geared towards changing the external environment in combination with the Dutch Research Agenda (NWA). The Lorentz Center informed the committee that the current funding from NWO and Leiden University had already been stretched to accommodate 80 workshops. It is also clear that this level of funding is insufficient to support any future ambitions to diversify or grow the palette of workshops.

The committee sees a challenge for the Lorentz Center in striking a balance between its core activities (workshops) and new activities. The committee strongly recommends that the Center should work to achieve greater flexibility within its workshop formats to accommodate other activities.

A point of concern for the committee and the Lorentz Center management is the Center's current accommodation. In the near future, the Oort Building will no longer be available. The Center has been looking at a number of alternatives, but a conclusive solution has not yet emerged. This is clearly an urgent problem. The director and his management team are developing a business plan for a new venue which takes into account aspects such as proximity to the sciences, affordability and the atmosphere of the location.

Another challenge concerns the existing governance structure. While this has proved to be functional for an extensive period, it should evolve to be commensurate with the growing complexity of a larger organization. Any new structure should not lead to more bureaucracy, longer processes or change the informal atmosphere of the workshops, but could certainly help to accommodate a growing diversity of disciplines in the workshops and a more sustained incorporation of SSH. It could also help control and influence the external factors that impact the Center, not least its reliance on its two funders for housing and finance.

In addition to the governance, the committee notes that no clear formal contracts have been drawn up between the main stakeholders of the Lorentz Center. In the interests of a more structural and unambiguous commitment, the committee advises the stakeholders to formalize the connection, e.g. by means of a Memorandum of Understanding.

Weighing up all the factors, the committee acknowledges the tremendous importance of the Lorentz Center in developing a vision for enabling multidisciplinary exchange and communication between scholarship and society. It is precisely for this reason that the committee is worried by the Center's

uncertain financial situation. The unchanged nature of the Center's governance is also of concern to the committee, although its management is certainly aware of this issue. In light of these concerns, therefore, the committee gives the Lorentz Center a rating of "very good" for this criterion, noting that some of the factors influencing the possibility to live up to this criterion are beyond the Center's direct control.

The committee has the following recommendations:

- The stakeholders, both NWO and Leiden University, should establish stable structural budgets for the coming period with a reasonable time scale of at least five years.
- Leiden University should consider converting the very successful impulse funding for SSH workshops into structural funding for this domain.
- NWO should explore the national role of the Lorentz Center, in more strategic and agenda-setting activities, for example. These activities are new for the Lorentz Center and current funding is not sufficient to carry out such activities. Additional dedicated funding would be necessary, in order not to dilute the success of the current activities.
- The Lorentz Center should be mindful of the balance between its core activities (workshops) and new activities. However, the committee strongly recommends that the Center should work towards achieving greater flexibility in its workshop formats.
- The Lorentz Center has grown substantially over the past few years. The governance needs to evolve to reflect this growth in size and scope and should provide clarity as to who sets the strategy, who appoints the director, the role of the advisory boards, etc.
- The existing contact between both stakeholders (NWO and Leiden University), and between the stakeholders and the Lorentz Center should be formalized (e.g. through a Memorandum of Understanding).

## 6. Main conclusions

The committee concludes that, based on the first three criteria, the Lorentz Center has shown excellence over the past years. In short, it is a world-leading facility. However, for the viability for the future there are some issues that need to be addressed:

1. The funding needs to be increased if current activities are to be maintained, and substantially increased if additional activities are foreseen.
2. The governance of the Lorentz Center needs to be updated to reflect both current and proposed levels of activity.

## 7. Recommendations

In addition to the specific advice given in the light of the four criteria, the committee offers the following general recommendations.

### ❖ *Leiden University:*

The committee concludes that the impulse funding the University provides to the Lorentz Center for its programme has been used very effectively by the Lorentz Center. To sustain this standard or to move beyond the current model, adequate structural funding for these activities is needed. The committee encourages the University to support the Lorentz Center in finding adequate accommodation, since the current accommodation is due to become unavailable in the near future.

### ❖ *The Dutch Research Council (NWO):*

The committee recommends that NWO should sustain its contribution to the Lorentz Center for the organization of workshops across the full range of scientific disciplines. The committee invites NWO and the Lorentz Center to explore the potential for the Center to play a more agenda-setting and strategic role in relation to the Dutch Science Agenda.

❖ ***The Lorentz Center:***

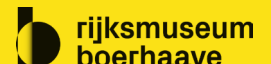
The committee is very impressed by what the Lorentz Center has achieved, especially given the changing scientific landscape in the Netherlands and the limited financial resources made available. The committee recommends that the Lorentz Center should continue its core business but with greater flexibility, in order to explore new activities and adopt a governance structure that reflects the next phase of its evolution.

The Lorentz Center organizes international workshops in all scientific disciplines. We believe that research thrives by open interaction. We promote innovative research, at the scientific frontiers as well as on complex societal challenges. Our strength is to foster collaboration between research communities, reaching also beyond academia. Our workshops are characterized by ample time for active discussions and informal interactions.

***'You do the research, we do the rest'***



Universiteit  
Leiden  
The Netherlands



**NIAS**

**DISTINGUISHED LORENTZ FELLOWSHIP 2015 / 2016**

**CALL FOR NOMINATIONS**

The NIAS-Lorentz Program is looking for an outstanding scientist who wants to do cutting-edge research that bridges the humanities and/or social sciences with the natural sciences and/or technology.

The Distinguished Lorentz Fellow (DLF) may be nominated by leading figures in the Dutch academic community, or museums and industries with a research agenda: rectors, deans, directors, governors, distinguished scientists.

**WHAT WE OFFER**

- € 10,000 personal prize
- 5 to 10 months fellowship at NIAS, including on-campus study, research facilities and residential accommodation
- 1-week workshop at the Lorentz Center, including full organizational support and € 20,000 budget for travel and hotel reimbursements

**DLF PROFILE**

- excellent academic track record
- capacity to bring together researchers from diverse disciplines
- embedded in the Dutch scientific community

**PROCEDURE**

Contact: Petry Kivell-Tyson  
petry.kivell@nias.knaw.nl

Information: [www.nias-lorentz.nl](http://www.nias-lorentz.nl)

Deadline: 15 October 2014

**Lorentz center**

netherlands eScience center  
**Lorentz center**

**CALL FOR APPLICATIONS**

**Lorentz-eScience competition 2018**

The Netherlands eScience Center and the Lorentz Center are looking for researchers who want to join the Lorentz-eScience competition and organize a workshop at the Lorentz Center @ Snellius, Leiden, the Netherlands.

The Lorentz-eScience competition aims to host a leading-edge workshop on digitally enhanced research (efficient utilization of data, software and e-infrastructure). The workshop topic should bring together researchers from the academic, scientific community and the public/private sector.

**What we seek**

- an innovative scientific program, that takes us beyond current boundaries
- an open and interactive format, with few lectures
- at least one scientific organizer based within and one outside the Netherlands
- at least one scientific organizer from the academic sector and one from the public/private sector

**What we offer**

- 2.5-day workshop for up to 25 people in the first half of 2018
- travel and accommodation reimbursements
- no registration fees or other organizational costs
- a professional support organization, under the philosophy 'You do the research, we do the rest'

**Procedure**

- a 1-page expression of interest by 15 April 2017
- a full application by 1 June 2017
- final decision end of June 2017
- submit applications to: [proposals@lorentzcenter.nl](mailto:proposals@lorentzcenter.nl)

**Information**

- Wilco Hazeleger, director Netherlands eScience center  
[w.hazeleger@lorentzcenter.nl](mailto:w.hazeleger@lorentzcenter.nl)
- Arjen Douma, director Lorentz Center  
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- Henkema Janssen, scientific manager Lorentz Center  
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**www.lorentzcenter.nl** **www.esciencecenter.nl**

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**Mathematical Structures for Cryptography**

**Organizers**

- Hendrik Lenstra, U Leiden
- Alice Silverberg, UC Irvine
- Marco Streng, U Leiden

**include**

- Ted Chmurg, U Penn
- Henri Cohen, U Bordeaux
- Ronald Cramer, CWI Amsterdam
- Andreas Enge, U Bordeaux
- Patrick Gaudry, U Lorraine
- Nadia Heninger, U Penn
- Florian Hess, U Oldenburg
- Dhinakar Jethaval, EPFL Lausanne
- Kiran Kedlaya, UC San Diego
- David Kohel, Aix Marseille U
- David Lohrey, TU Eindhoven
- Phong Nguyen, ENS Paris
- Chris Peikert, U Michigan
- René Schoof, U Rome Tor Vergata
- Eric Vercauteren, KU Leuven

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