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Appointment letter

On behalf of the Committee for Responsible Research Practices at the University of Copenhagen (the *Practice Committee*) I hereby confirm your appointment to an expert group mandated with the task to clarify the basis of a complaint filed by Jake S. Yeston regarding the Research Article “Flux-induced topological superconductivity in full-shell nanowires” by S. Vaitiekėnas et al., published in Science Magazine on 27 March 2020.

The contents of this assignment is set forth in the attached Terms of Reference, the contents of which have previously been discussed with you and the other members of the group.

I thank you in advance for your assistance in this matter which is highly appreciated by the University of Copenhagen.

THE PRACTICE COMMITTEE

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CASE NOS 74 & 77

Sincerely yours,

Mads Bryde Andersen

Professor, dr.jur.

Chairman of the Practice Committee

Terms of reference

SIDE 2 AF 5

for the Expert group appointed by the Practice Committee at the University of Copenhagen to clarify the basis of the complaint filed by Jake S. Yeston, PhD and editor of Science Magazine regarding the Research Article “Flux-induced topological superconductivity in full-shell nanowires” by S. Vaitiekėnas et al., published in Science Magazine on 27 March 2020.

Background

On 30 July 2021, the Editor-in-Chief of *Science Magazine*, H. Holden Thorp, published the following “Editorial Expression of Concern” regarding the Research Article “Flux-induced topological superconductivity in full-shell nanowires” by S. Vaitiekėnas et al., published in *Science Magazine* on 27 March 2020:

“Pursuant to a reader request, the authors released additional data —archived at Zenodo (2)—taken in association with the project that led to their paper. After the release of the additional data, two readers expressed a joint concern that the tunneling spectroscopy data published in the original paper are not representative of the entirety of the data released in association with this project.

While we await the outcome of a full investigation commenced by the authors’ academic institution (Niels Bohr Institute, University of Copenhagen), we are alerting our readers to this concern.”

Following up on this note, the editors at *Science Magazine* stated that they “believe that an independent, transparent investigation by experts in this sub-field of Majorana physics is necessary to ascertain whether or not the authors unethically withheld data that undermined the conclusions of their paper.”

A formal complaint was filed to the PC by Jake Yeston on 5 October 2021.

The purpose of the present Terms of Reference is to form the basis for conducting this investigation.

Mandate

Pursuant to section 14, of The University of Copenhagen *Rules of Procedure for Cases regarding Questionable Research Practices and Research Misconduct*, the Committee for Responsible Research Practices (the Practice Committee) is competent to hear cases of *questionable research practices*.

If a complaint filed to the Practice Committee may involve issues pertaining to research misconduct, the Practice Committee will forward such complaint to The Danish Committee on Research Misconduct.

This division of powers transpires from section 4(1) of Act no. 383 of 26 April 2017 on Research Misconduct etc.

Upon deliberation, the Practice Committee has invited a panel of experts to consider the basis of the questions raised by the said Editorial Expression of Concern.

In particular, the panel is invited to consider the following two main questions:

1. whether the data presented in the *Science Magazine* article accurately represented the outcome of the experiments undertaken, and
2. whether the authors deliberately or due to gross negligence withheld data that undermined the conclusions of their paper.

The mandate of the experts is confined to the said scientific article and does not include any other complaint made towards the teams of authors of the disputed work.

The panel

The panel of experts are composed of the following:

1. *Sophie Gueron*, CNRS Research Director, Université Paris-Saclay, Laboratoire de Physique des Solides, Orsay, France;
2. *Pertti Hakonen*, Professor, Department of Applied Physics, Aalto University School of Science, Finland;
3. *Allan MacDonald*, Professor of Physics, University of Texas at Austin, Texas, USA; and
4. *Alfredo Levy Yeyati*, Professor, Departamento de Física Teórica de la Materia Condensada Universidad Autónoma de Madrid, Madrid, Spain.

The panel shall appoint a member to be responsible for the communication with the Practice Committee.

All panel members have at their appointment to the Panel stated that they are unbiased as to the subject matter of the investigation and that they have no personal relations to the authors of the said *Science Magazine* article that bring them into a conflict of interest.

Unless special agreement in writing is made between the Panel and the University of Copenhagen, the panel members undertake their task as part of their general academic duties and demand no remuneration for their time spent.

Any reasonable out-of-pocket costs in relation to the investigation will be borne by the University of Copenhagen against documentation.

Working method

Within the limits set forth below, the panel of experts shall decide the working method they prefer to apply in order to provide the best basis for fulfilling the mandate. It is thus up to the panel whether they wish to contact individual members of the team of authors of the article, or whether they prefer to communicate collectively with the authors.

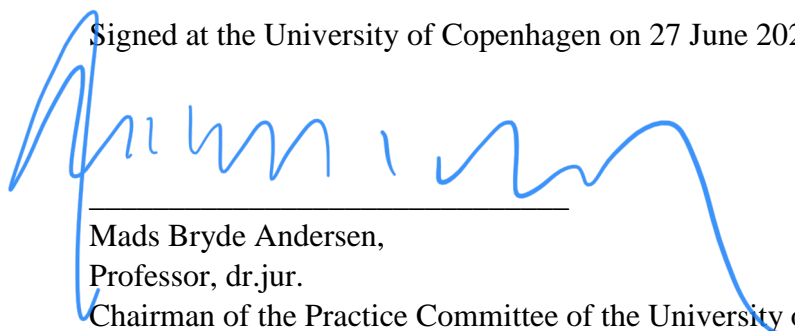
In deciding this method, the Panel may, as they wish, be inspired by the methods applied in an expert report from 2020 submitted by a panel of experts appointed by the Technical University in Delft, NL, regarding some of the conclusions reached by the paper “Quantized Majorana conductance” published in *Nature* in 2018. See <https://zenodo.org/record/4545812#.YkQlgzVJE2y>).

In general, the panel should observe the following basic principles:

1. All communication to the authors of the *Science Magazine* article and other individuals that the panel communicates (including e-mails) with should be kept *on file* to be used in case a complaint is subsequently raised over the expert procedure as completed.
2. If during meetings substantial decisions are made or important facts provided by oral communications, the panel shall prepare minutes of such meetings to be signed or agreed (using other forms of communication) by the participants.
3. The panel members may contact third parties for particular questions, including the complainants before the Practice Committee. In doing so, they should make clear what mandate they are working under. In doing so, they may share the present Terms of Reference for documentation hereof with the third parties.
4. In their communication with the authors, the panel members may express initial and non-binding views on particular issues, however

- only with a clear indication that their final views on the subject matter will only be found upon deliberation between the panel members.
5. The conclusions of the panel should be made in a report that makes the mandate, the investigations and the findings clear to the reader.
 6. It is up to the panel to decide whether they prefer to invite the authors or the complainants to comment upon a draft version of their report.
 7. The final version of the report will be made publicly available by the Practice Committee.

Signed at the University of Copenhagen on 27 June 2022



Mads Bryde Andersen,
Professor, dr.jur.
Chairman of the Practice Committee of the University of Copenhagen