

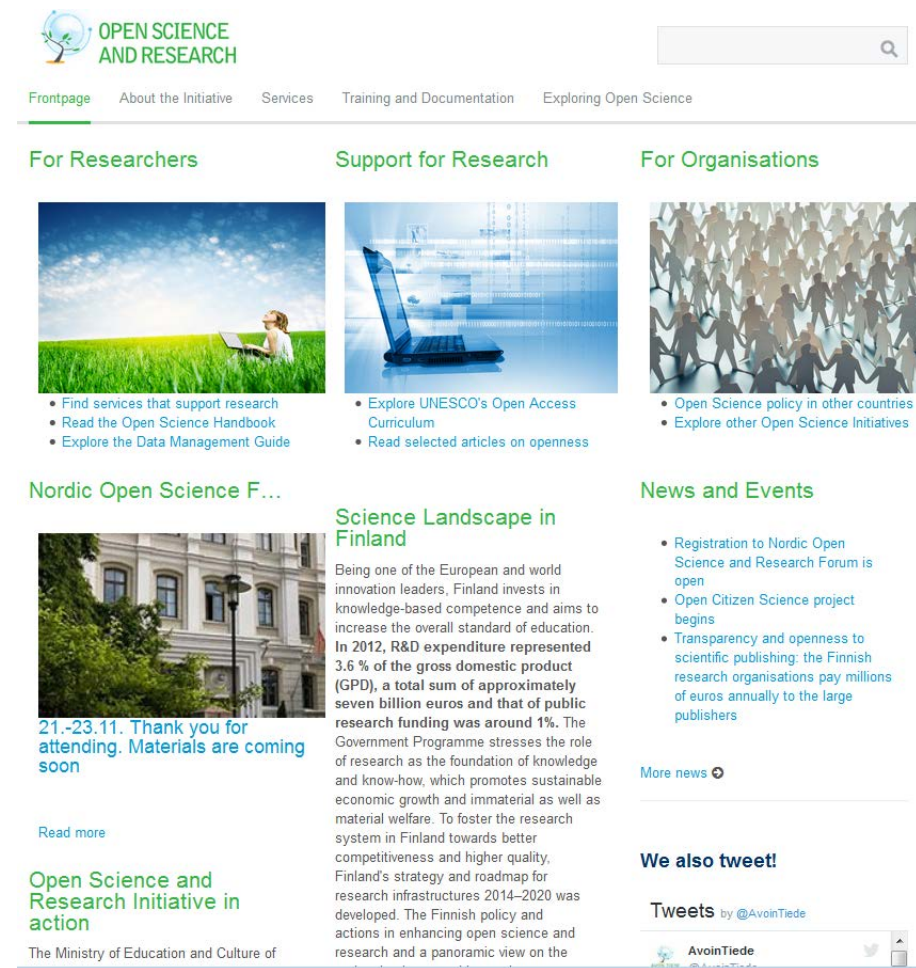
OA publication and cost data in Finland

Knowledge Exchange Workshop, Copenhagen,
November 29, 2016

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Background: Open Science and Research (1)

- Open Science and Research Initiative (2014-2017)
 - A national project funded and coordinated by the Ministry of Education and Culture
 - “The objective is for Finland to become one of the leading countries in openness of science and research by the year 2017 and to ensure that the possibilities of open science will be widely utilized in our society”



The screenshot shows the homepage of the Open Science and Research Initiative website. The header features the logo and navigation links: Frontpage, About the Initiative, Services, Training and Documentation, and Exploring Open Science. The main content is organized into three columns: For Researchers, Support for Research, and For Organisations. The For Researchers section includes a link to find services that support research. The Support for Research section includes links to explore UNESCO's Open Access Curriculum and read selected articles on openness. The For Organisations section includes links to explore Open Science policy in other countries and other Open Science Initiatives. Below these columns, there are sections for Nordic Open Science Forum, Science Landscape in Finland, and News and Events. The Science Landscape in Finland section includes a paragraph about Finland's investment in knowledge-based competence and aims to increase the overall standard of education. The News and Events section includes links to registration to the Nordic Open Science and Research Forum, the Open Citizen Science project, and transparency and openness to scientific publishing. At the bottom, there is a section for We also tweet! featuring tweets from @AvoinTiede.

OPEN SCIENCE AND RESEARCH

Frontpage About the Initiative Services Training and Documentation Exploring Open Science

For Researchers

Support for Research

For Organisations

Nordic Open Science F...

Science Landscape in Finland

News and Events

We also tweet!

Background: Open Science and Research (2)


- A top-down initiative, with many stakeholders involved
 - Successful in raising awareness both among the researchers and decision makers
 - Has led to the creation of new open science policies at many Finnish research organizations
- Main focus of the initiative has been on research data
 - OA has been a lesser priority
 - The initiative has funded a number of smaller projects on OA, both green and gold
- Will end in 2017, at the moment unclear what will happen after that



The amount of OA in Finland?

- 19% of peer-reviewed articles produced by the Finnish research organizations OA in 2015
 - The goals set by Open Science and Research far more ambitious
- 13% of all state funding for the Finnish universities is distributed based on the number and quality of research publications
 - OA as a factor in the funding model would provide extra motivation - perhaps starting from 2019?

Year of Publication

2015 

Sector

University (21365)

Research Institute (669)

University of Applied Sciences (640)

Open Access

Gold OA publication channel (3489)

Other OA availability (759)

Counting the OA publications

- OA monitoring integrated with the national data collection conducted for the Ministry of Education and Culture
 - The publication metadata is collected by CSC from the CRIS of each organization
 - The data collection process is currently being automated
 - The publication data can be browsed at Juuli, www.juuli.fi
- So far, there have been issues with the quality of the OA status data
 - Starting from 2016, improved definitions & better categories

Type of Publication

A1 Journal article (refereed), original research (73127)

A2 Review article, Literature review, Systematic review (4119)

A3 Book section, Chapters in research books (15328)

A4 Conference proceedings (20657)

B1 Non-refereed journal articles (12389)

B2 Book section (7837)

B3 Non-refereed conference proceedings (4660)

C1 Book (1971)

C2 Book (editor), chapters in research books, conference proceedings or special issue of a journal (3165)

D1 Article in a trade journal (13115)

D2 Article in a professional book (incl. an introduction by the editor) (8631)

D3 Professional conference proceedings (1270)

D4 Published development or research report or study (6602)

D5 Textbook, professional manual or guide (1588)

D6 Edited professional publication (253)

E1 Popularised article, newspaper article (17289)

E2 Popularised monograph (620)

E3 Edited popularised publication (46)

OA status in the national data collection

- Two separate fields for indicating the OA status of a publication
 - One field indicates whether the publication is OA via a Gold or a Hybrid channel
 - The second field is used for indicating whether it has been deposited into a repository (Green OA)
- No data collected on APC costs

The screenshot displays the Aaltodoc library interface. At the top, the Aalto University Library logo is visible. The main content area shows the title 'Towards quantum thermodynamics in electronic circuits' and various metadata fields: Author(s) Pekola, Jukka P., Date 2015, Language en, Pages 118-123, Department Teknillisen fysiikan laitos, Department of Applied Physics, Series Nature Physics, Volume 11, Issue 2, ISSN 1745-2473 (printed), DOI-number 10.1038/nphys3169, Subject Physics, Technology, and Keywords Statistical physics, thermodynamics and nonlinear dynamics. A citation box provides the full citation: Pekola, Jukka P. 2015. Towards quantum thermodynamics in electronic circuits. Nature Physics. Volume 11, Issue 2. 118-123. 1745-2473 (printed). DOI: 10.1038/nphys3169. The abstract follows, discussing electronic circuits at sub-kelvin temperatures. A rights section mentions the 2015 Nature Publishing Group. At the bottom, there are links for email, export to RefWorks, QR code, print, BibTeX, and tweet. The right sidebar includes a search bar, a 'Submit a publication' button, a 'Browse' section with various filters, a 'My Account' section with a login button, and an 'Altmetrics' section showing 13 mentions across Blogs (1), Twitter (9), Mendeley (84), and CiteULike (2).

Aalto University Library

Aaltodoc → 6 Artikkelit / Articles → [article] Perustieteiden korkeakoulu / SCI → View item

Towards quantum thermodynamics in electronic circuits

Title: Towards quantum thermodynamics in electronic circuits
Author(s): [Pekola, Jukka P.](#)
Date: 2015
Language: en
Pages: 118-123
Department: Teknillisen fysiikan laitos
Department of Applied Physics
Series: Nature Physics, Volume 11, Issue 2
ISSN: 1745-2473 (printed)
DOI-number: [10.1038/nphys3169](#)
Subject: [Physics, Technology](#)
Keywords: [Statistical physics](#), [thermodynamics and nonlinear dynamics](#)

[» Show full item record](#)

Citation:
Pekola, Jukka P. 2015. Towards quantum thermodynamics in electronic circuits. Nature Physics. Volume 11, Issue 2. 118-123. 1745-2473 (printed). DOI: 10.1038/nphys3169.

Abstract:
Electronic circuits operating at sub-kelvin temperatures are attractive candidates for studying classical and quantum thermodynamics: their temperature can be controlled and measured locally with exquisite precision, and they allow experiments with large statistical samples. The availability and rapid development of devices such as quantum dots, single-electron boxes and superconducting qubits only enhance their appeal. But although these systems provide fertile ground for studying heat transport, entropy production and work in the context of quantum mechanics, the field remains in its infancy experimentally. Here, we review some recent experiments on quantum heat transport, fluctuation relations and implementations of Maxwell's demon, revealing the rich physics yet to be fully probed in these systems.

Rights:
© 2015 Nature Publishing Group. This is the post print version of the following article: Pekola, Jukka P. 2015. Towards quantum thermodynamics in electronic circuits. Nature Physics. Volume 11, Issue 2. 118-123. 1745-2473 (printed). DOI: 10.1038/nphys3169, which has been published in final form at <http://www.nature.com/nphys/journal/v11/n2/full/nphys3169.html>.

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[Keywords](#)
[Departments](#)

My Account
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Altmetrics

Blogs (1)
Twitter (9)
Mendeley (84)
CiteULike (2)

OA definition?

- The OA rules has been made as clear as possible
 - The publication should be at least free to read (“gratis OA”)
 - Gold/Hybrid and Green Open Access are all accepted
 - Embargoes allowed for Green OA but not for Gold or Hybrid
 - Depositing into an institutional or subject-based repository is OK, but papers available at personal/project websites or at walled gardens like Research Gate or Academia.edu don't count
 - The OA version must be peer-reviewed to qualify



Further policy issues

- Should there be a maximum embargo – or no embargo at all - allowed for Green OA?
- Should all publications be deposited into a repository?
- Should there be a more strict policy on licenses (“libre OA”)?

Ion source research and development at University of Jyväskylä: Studies of different plasma processes and towards the higher beam intensities



Full text delay due to publisher restrictions (“embargo”) till 2016-11-11.



Name: [koivistokalvaseta ...](#)



Size: 2.136Mb

Format: PDF

Description: Publisher's PDF

Citation:

Koivisto, H., Kalvas, T., Tarvainen, O., Komppula, J., Laulainen, J., Kronholm, R., . . . Machicoane, G. (2016). Ion source research and development at University of Jyväskylä: Studies of different plasma processes and towards the higher beam intensities. *Review of Scientific Instruments*, 87 (2), 02A725. doi:10.1063/1.4934687

Title: Ion source research and development at University of Jyväskylä: Studies of different plasma processes and towards the higher beam intensities

Author: Koivisto, Hannu; Kalvas, Taneli; Tarvainen, Olli; Komppula, Jani; Laulainen, Janne; Kronholm, Risto; Ranttila, Kimmo; Tuunanen, Juha; Thuillier, T.; Xie, D.; Machicoane, G.

Abstract: Several ion source related research and development projects are in progress at the Department of Physics, University of Jyväskylä (JYFL). The work can be divided into investigation of the ion sourceplasma and development of ion sources, ion beams, and diagnostics. The investigation covers the Electron Cyclotron Resonance Ion Source (ECRIS) plasma instabilities, vacuum ultraviolet (VUV) and visible light emission, photon induced electron emission, and the development of plasma diagnostics. The ion source development covers the work performed for radiofrequency-driven negative ion source, RADIS, beam line upgrade of the JYFL 14 GHz ECRIS, and the development of a new room-temperature-magnet 18 GHz ECRIS, HIISI.

Publisher: American Institute of Physics

Date: 2016

Towards offsetting agreements?

- FinELib consortium is negotiating new deals with Elsevier & several other major publishers
 - Offsetting elements part of the agenda in negotiations
 - At the moment we don't know whether there we will reach an agreement with Elsevier
- Support from the Finnish researchers: tiedonhintafi.fi
 - The signatories are prepared for the termination of subscriptions and will abstain from peer review and editorial duties for the journals in question



THE COST OF SCIENTIFIC PUBLICATIONS MUST NOT GET OUT OF HAND

Large international scientific publishers are currently enjoying remarkable profit margins. Their business is heavily indebted to the voluntary work of the researchers. The scientific community produces research, usually publicly funded, edits the publications as unpaid volunteers, and then buys back the scientific publications. Publishers have increased the price of publications significantly year by year although in this digital era the trend should be the opposite. In 2015 Finnish research organisations paid a total of 27 million euros in subscription fees and in the future the price looks to be higher still. The hikes in fees are especially problematic at a time when funding cuts are narrowing the scope of opportunity for science as it is. In currently ongoing contract negotiations Finnish scientific libraries are demanding that prices be made more reasonable and open access publishing more prevalent. We, the signatories, support these goals. We are prepared to abstain from refereeing and editorial duties for the journals of the publishers involved in these negotiations if the goals of the Finnish negotiators are not realised.

The price tag for scientific journals in 2017 is currently under negotiation. The talks between FinELib consortium, which represents the Finnish scientific community, and international scientific publishers over subscription conditions have proved extremely challenging. Some publishers have been unwilling to meet the demands of the Finnish negotiators that prices

Allekirjoita / Undertekna / Sign

FIRST NAME *

LAST NAME *

EMAIL *

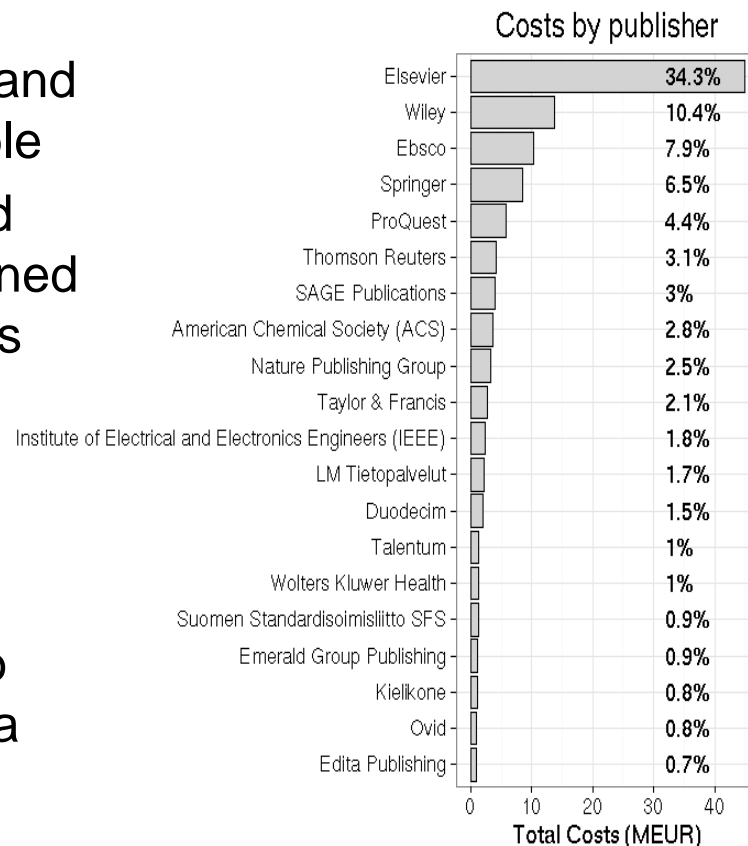
CONFIRM EMAIL *

TITLE AND FIELD OF RESEARCH

Large international scientific publishers are currently enjoying remarkable profit margins. Their business is heavily indebted to the voluntary work of the researchers. The scientific community produces research, usually

Open subscription costs in Finland

- Annual subscription fees for all publishers and all research institutions now openly available
 - Open Knowledge Finland activists sued one of the universities, which had declined to provide information on the costs of its licensing deals
 - Court decision: the costs are public information
 - The Ministry of Education and Culture, Open Science and Research & FinELib organized the collection of the cost data from all organizations
- [Available as open data](#) since June 2016
 - So far, no reactions from the publishers



Source: Lahti, Leo (2016). [Scientific journal subscription costs in Finland 2010-2015: a preliminary analysis](#).

The administration of APCs in Finland

- A national survey ([Naukkarinen 2016](#)) on the administration of APCs at Finnish universities, conducted in 2015
 - Inquiries both to the universities and to the publishers
 - Result: we can make educated guesses on how much we pay (probably > 1 million euros / year), but we don't really know
- The universities have had no centralized tracking system for APCs
 - Financial administration often has no category for APCs, paid from different accounts, invoices sent directly to researchers
 - The monitoring of APCs has been out of scope for CRISes
 - So far, there have been no university-level OA funds (the Aalto University will start one in 2017)

APC monitoring: policy issues

- What should be done locally / nationally?
 - Many of the universities have started to adjust their systems and processes to enable the monitoring of APCs
 - Reliable OA and APC data would be very useful for the national offsetting negotiations as well
- Towards Open APC data in Finland?
 - There has been some discussion on this among the libraries
 - Currently many of the official policies stress the importance of Green OA over Gold or Hybrid OA
 - The Ministry of Education and Culture is still undecided on whether it would be willing to fund an Open APC project

The first university-level OA fund

- Aalto University will launch an APC fund pilot in 2017
 - A sum of 120.000 euros will be used to support APC payments
 - Can be used for both Gold and Hybrid channels
 - The rest of the APC costs will continue to be covered from project funding
- According to preliminary information from Aalto, funding will be available only for publishing in "high-quality journals" (= journals at levels 2 and 3 in the Finnish Publication Forum ranking)
 - There are very few Gold OA journals at these levels - no funds for e.g. publishing in megajournals like PLoS One
 - Most of the money will go to the Hybrid OA journals of the legacy publishers?

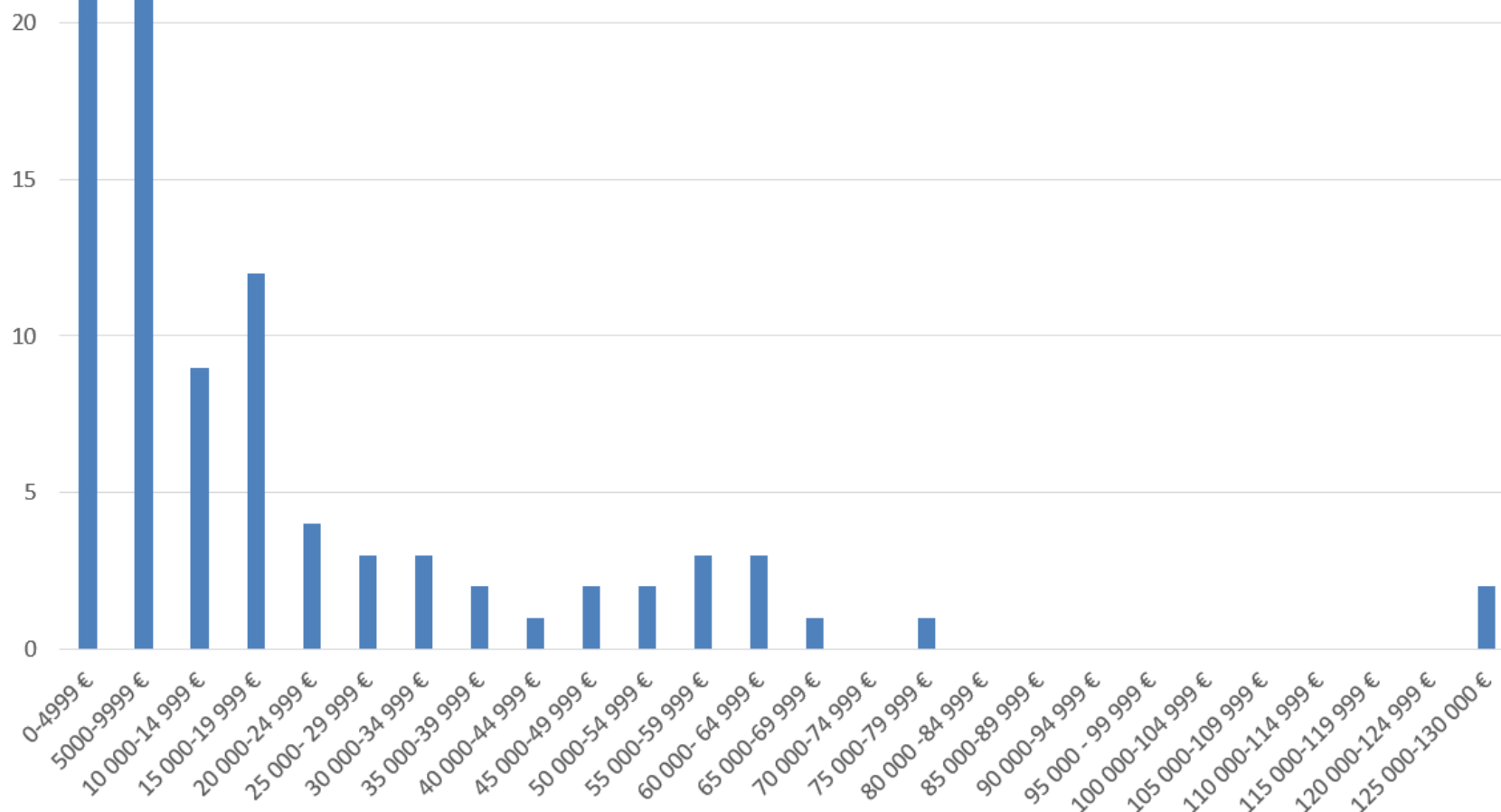
Working with the domestic publishers

- Domestic journals are very important for fields like humanities, social sciences & law
- Most of the Finnish journals are published by small scholarly societies
 - The journals are mainly run by researchers
 - Most of the income from membership fees, individual subscriptions and state funding
 - The libraries pay very little for them
 - Many of the journals only available in print version



Revenues of the domestic journals

The revenues of 90 Finnish scholarly journals in 2014.
Source: Federation of Finnish Learned Societies



A consortium-based funding model?

- The Kotilava project (www.kotilava.fi), 2015-2017, is funded by the Open Science and Research Initiative
 - A joint project between the Federation of Finnish Learned Societies and the National Library of Finland
- Developing a consortium-based funding model for Finnish scholarly journals moving to OA
 - The research organizations and funders will cover the loss of subscription and membership income
 - No APCs (for Finnish authors, at least?)
- A new, improved centralized platform (journal.fi, based on OJS 3)
 - Adoption of DOIs & ORCIDs
 - Providing high-quality metadata for national and international aggregators - will be utilized by the university CRISes as well

A separate consortium for OA monographs?

- The Finnish Literature Society has been building [a separate consortium](#) for Finnish OA monographs
- Influenced by the Knowledge Unlatched model
- Co-operation with Helsinki University Library, technical platform from Ubiquity Press

The screenshot displays the SKS website interface. At the top is a navigation bar with links: Home, About, Books, Publishing, Research Integrity, SKS Homepage, and Suomeksi. Below this is an orange header with the SKS logo. The main content area features the book 'The Limits of Patriarchy' by Laura Stark. The book cover is shown, along with a synopsis: 'How Female Networks of Pilfering and Gossip Sparked the First Debates on Rural Gender Rights in the 19th-Century Finnish-Language Press'. Below the synopsis are buttons for 'Read Book', 'Download', and 'Buy Book'. A 'How to cite' section provides the citation: 'Stark, L. 2011. The Limits of Patriarchy: How Female Networks of Pilfering and Gossip Sparked the First Debates on Rural Gender Rights in the 19th-Century Finnish-Language Press. Helsinki: Finnish Literature Society. DOI: http://dx.doi.org/10.21435/sfe.13'. A 'License' section states: 'This book distributed under the terms of the Creative Commons Attribution + Noncommercial + NoDerivatives 4.0 license. Copyright is retained by the author(s)'. A 'Peer Review Information' section notes: 'This book has been peer reviewed'. On the right side, there is a 'Disciplines' section with tags for Anthropology, Ethnology, Gender History, Gender Studies, History, and Women's Studies. Below that is a 'Keywords' section with tags for Gender, Modernization, Women's history, Agency, Rural, and 19th-Century. At the bottom right, there is a 'Metrics' section.

Thank you!



THE NATIONAL LIBRARY OF FINLAND