



## Collaborative writing, reviewing and publishing tools

Mary Anne Baynes  
@mgbaynes  
@overleaf

[www.overleaf.com](http://www.overleaf.com)

# The internet is transforming research and collaboration

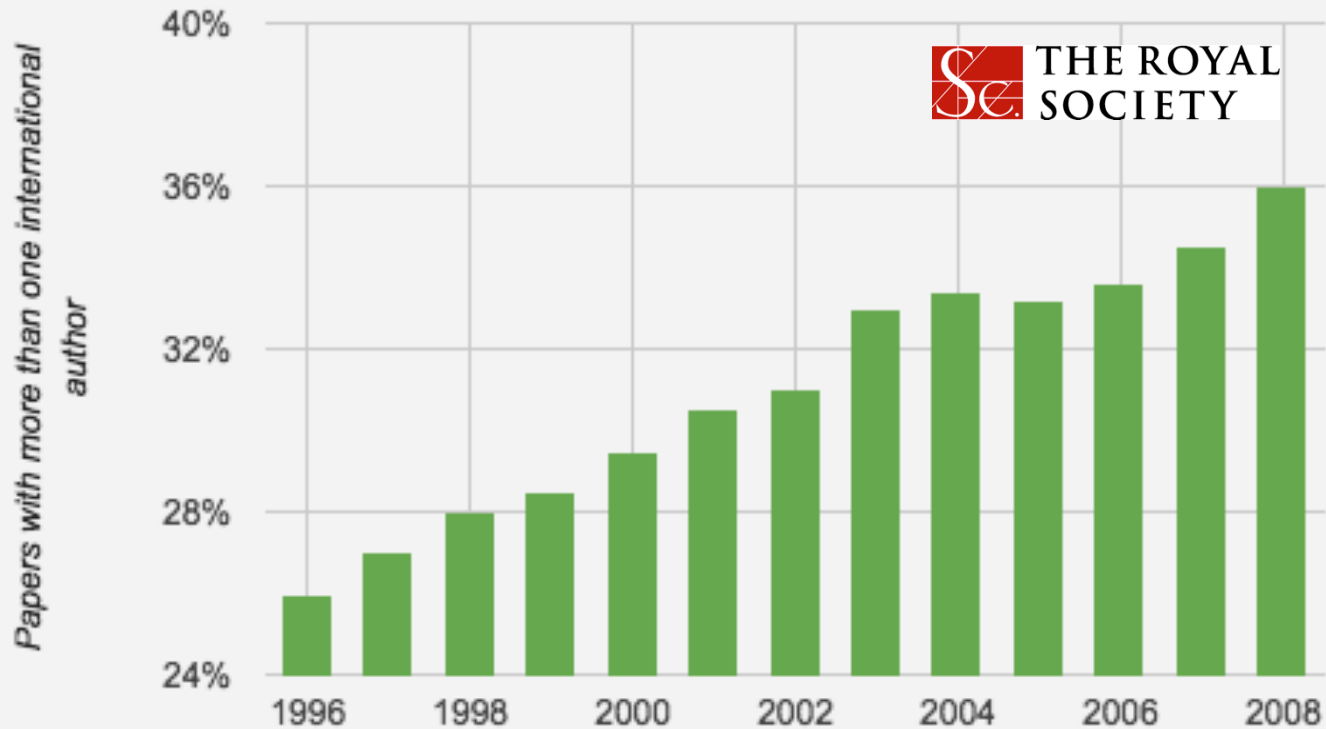


Computed by Olivier H. Beauchesne and SCImago Lab, data by Elsevier Scopus

Source:

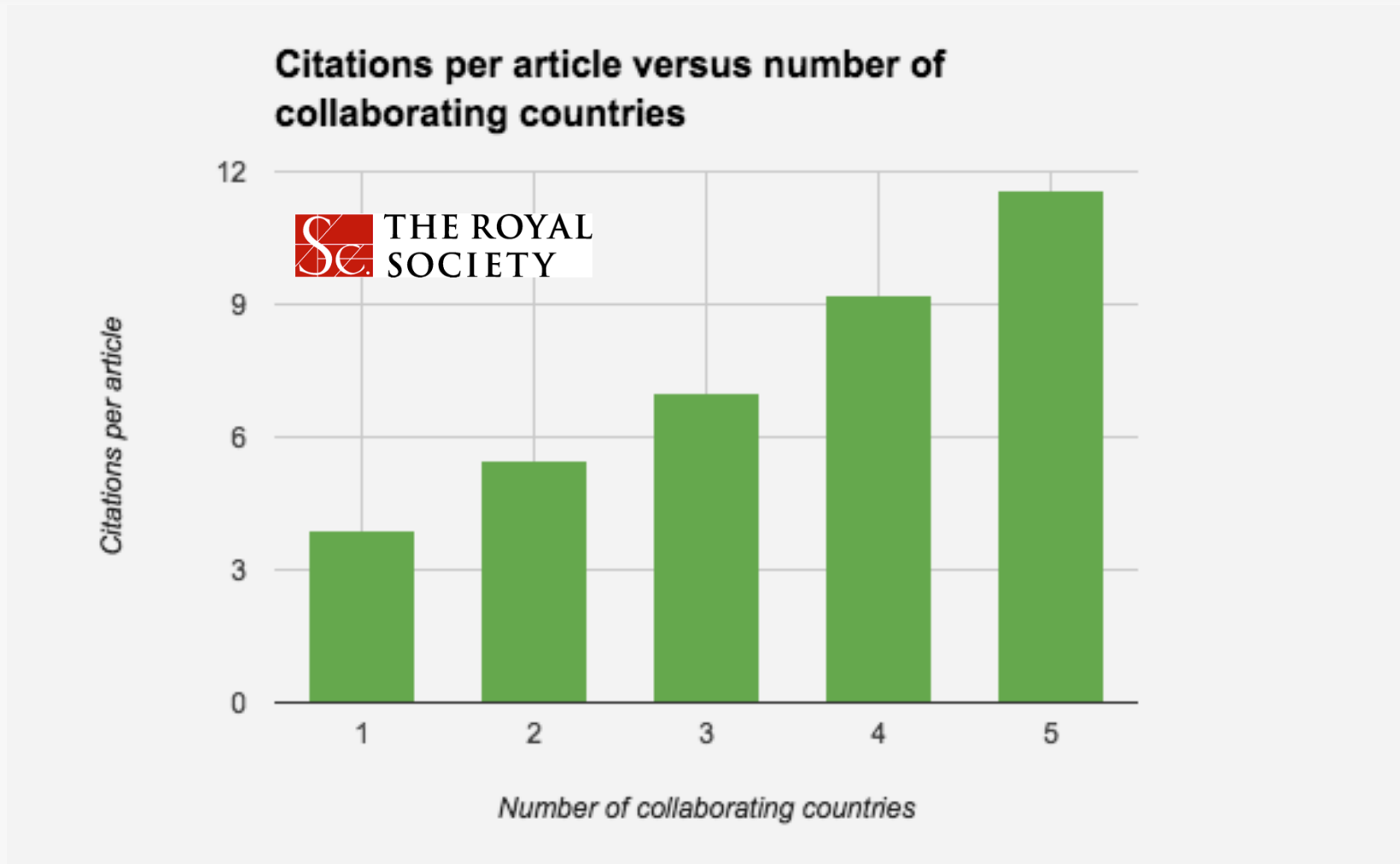
# Papers are created internationally

Proportion of the world's papers produced with more than one international author



Source: Knowledge, networks and nations. Global scientific collaboration in the 21st century - The Royal Society - 2011

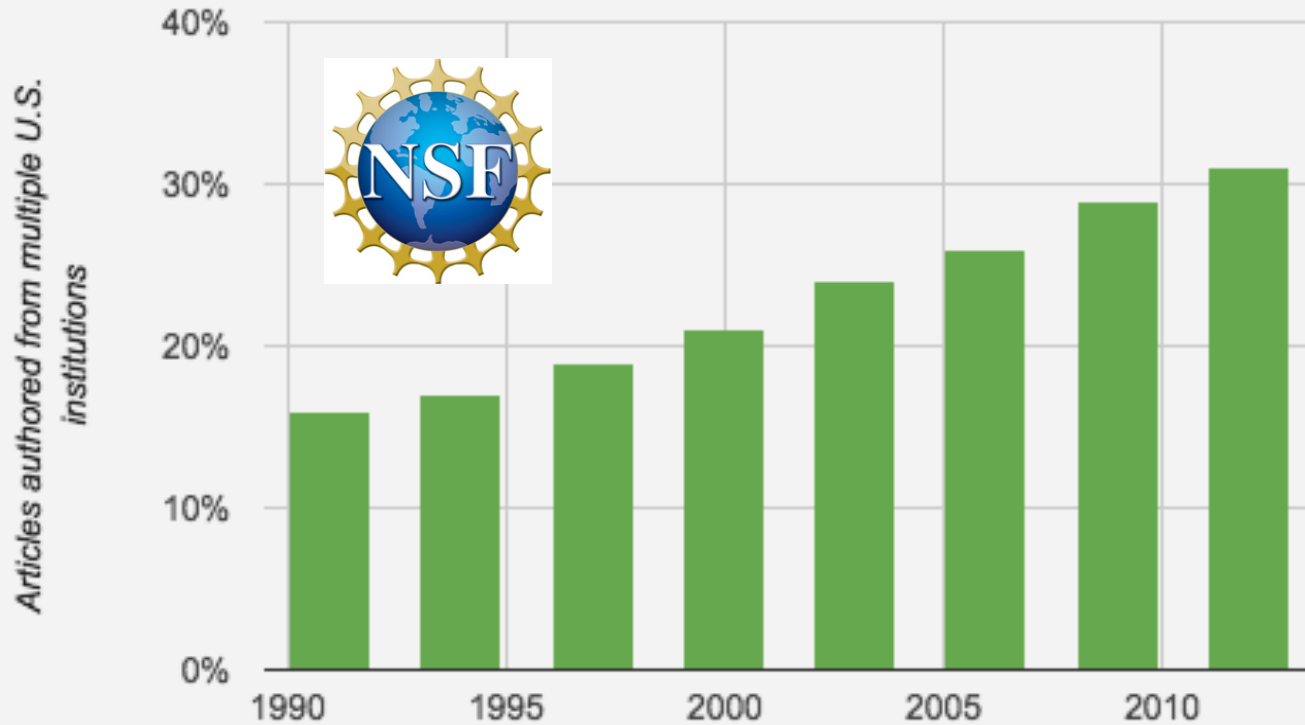
# International collaboration is highly beneficial



Source: Knowledge, networks and nations. Global scientific collaboration in the 21st century - The Royal Society - 2011

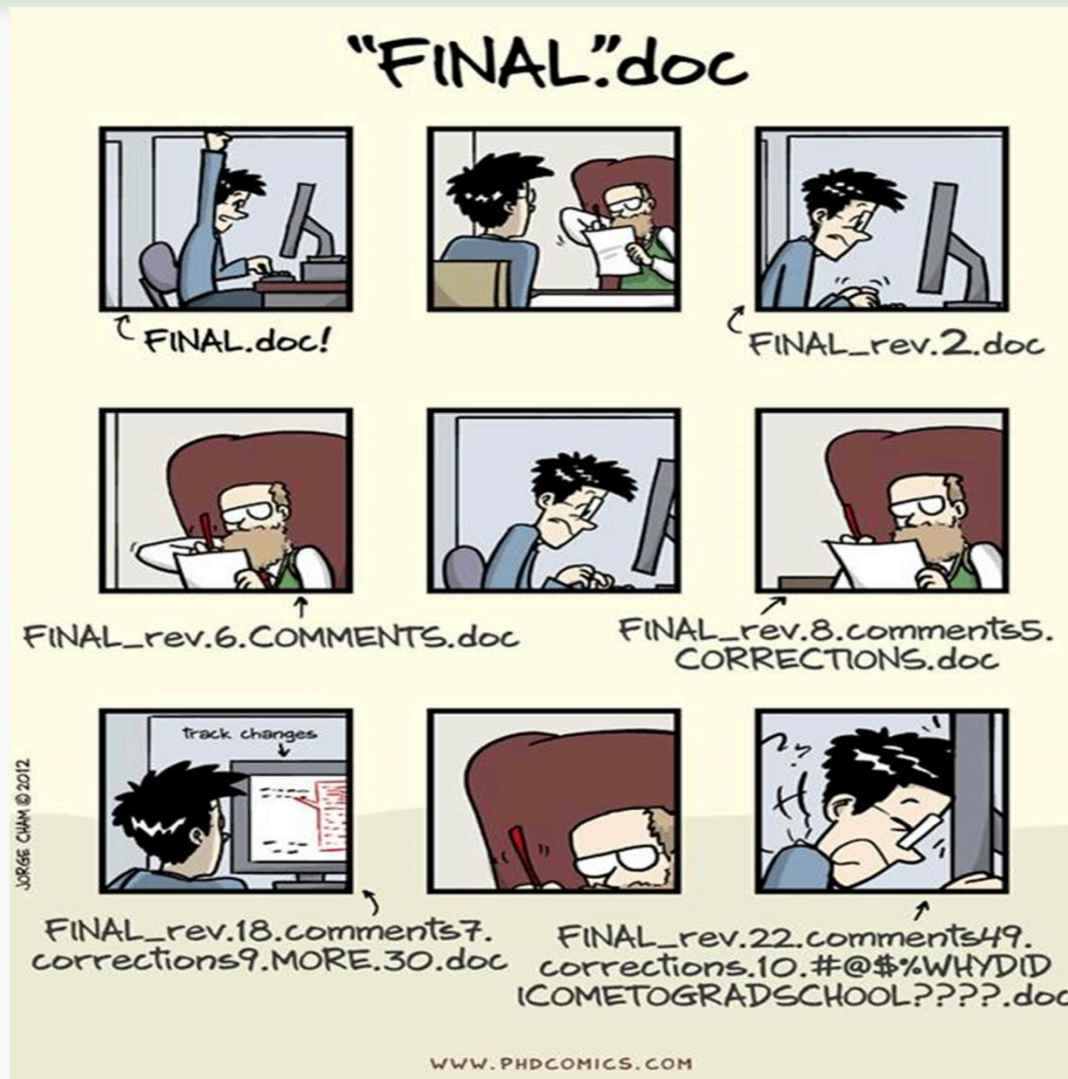
# Collaboration between US institutions is increasing

Proportion of articles authored from multiple U.S. institutions



Source: The U.S. Science and Engineering Landscape - National Science Foundation - 2014

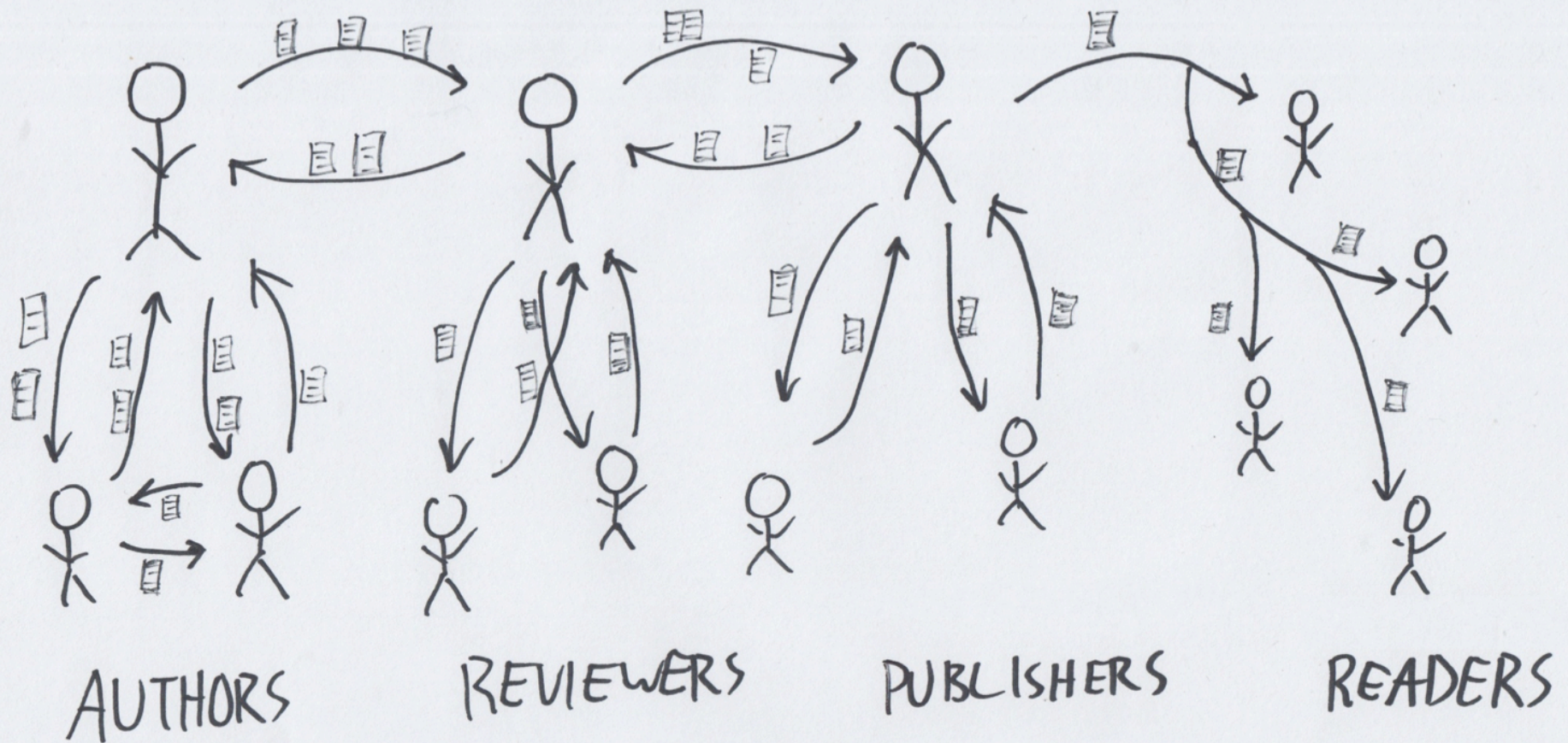
# Collaborating is frustrating



## Endless problems

- Dealing with multiple versions of the same document;
- Long email chains passing files around;
- Hours spent formatting & typesetting;
- Maintaining and formatting references & citations;
- Long revision cycles to incorporate comments, leading to more of the above.

# The entire document's lifecycle is affected





# One version of the document, accessible by all



# Overleaf Founders



John Hammersley



John Lees-Miller

## Worldwide growth



# The perks of real time collaboration

*“It really streamlined the process of writing the paper... I was happy to find a 21st century solution.”*

Artem Kaznatcheev  
Researcher at McGill University



[arXiv.org](#) > [q-bio](#) > [arXiv:1307.6914](#)

[Quantitative Biology](#) > [Populations and Evolution](#)

## Edge effects in game theoretic dynamics of spatially structured tumours

[Artem Kaznatcheev](#), [Jacob G. Scott](#), [David Basanta](#)



# Collaborative Writing and Publishing

The easiest way to create, edit and publish your research.



Start writing now!

CREATE A NEW PAPER



# Users can choose from over 1000 LaTeX template options.

The screenshot shows the Overleaf web interface. At the top, there is a navigation bar with the Overleaf logo, a news item "News: WriteLaTeX Relaunching as Overleaf", and user information "My Projects Mary Anne Baynes". Below the navigation bar is a dark header with menu items: "FEATURES & BENEFITS", "TEMPLATES", "PRICING", "COMPANY", and "HELP".

The main content area is partially obscured by a "Create New Project" dialog box. The dialog box has a teal header with the title "Create New Project" and a close button. It features a sidebar on the left with a list of template categories: Basics, Academic Journal, Bibliography, Book, Formal Letter, Homework Assignment, Newsletter, Poster, Presentation, Project / Lab Report, Résumé / CV, and Thesis. The "Basics" category is currently selected.

The main area of the dialog box displays two tabs: "Unlisted" (active) and "Protected". Under the "Unlisted" tab, there are three preview cards. The first is a blank white page. The second is a "Sample Paper" template with a header, a table of contents, and a small image. The third is a "Your Presentation" template with a title and a subtitle.

Below the "Unlisted" tab, there is a section titled "Academic Journal" which shows four preview cards of different academic journal templates, each with a header, abstract, and main text area.

# Edit on the left, see the typeset version on the right

## Modeling of Trap Induced Dispersion of Large Signal Dynamic Characteristics of GaN HEMTs

O. Jardel<sup>1</sup>, S. Laurent<sup>2</sup>, T. Reveyard<sup>2</sup>, R. Quere<sup>2</sup>, P. Nakkala<sup>2</sup>, A. Martin<sup>2</sup>  
S. Piotrowicz<sup>1</sup>, M. Campovecchio<sup>2</sup>, S.L. Delage<sup>1</sup>  
1III-V Lab, route de Nozay, 91461 Marcoussis Cedex, France  
2XLIM, 7 rue Jules Valles, 19100 Brive-la-gaillarde, France  
olivier.jardel@3-5lab.fr

### Abstract

We propose here a non-linear GaN HEMT model for CAD including a trapping effects description consistent with both small-signal and large-signal operating modes. It takes into account the dynamics of the traps and then allows to accurately model the modulated large signal characteristics that are encountered in telecommunication and radar signals. This model is elaborated through low-frequency S-parameter measurements complementary to more classical pulsed-IV characterizations. A  $8 \times 75 \mu\text{m}$  AlInN/GaN HEMT model was designed and particularly validated in large-signal pulsed RF operation. It is also shown that thermal and trapping effects have opposite effects on the output conductance, thus opening the way for separate characterizations of the two effects.

## Modeling of Trap Induced Dispersion of Large Signal Dynamic Characteristics of GaN HEMTs

O. Jardel<sup>\*</sup>, S. Laurent<sup>†</sup>, T. Reveyard<sup>†</sup>, R. Quéré<sup>†</sup>, P. Nakkala<sup>†</sup>, A. Martin<sup>†</sup>  
S. Piotrowicz<sup>\*</sup>, M. Campovecchio<sup>†</sup>, S.L. Delage<sup>\*</sup>  
<sup>\*</sup>III-V Lab, route de Nozay, 91461 Marcoussis Cedex, France  
<sup>†</sup>XLIM, 7 rue Jules Valles, 19100 Brive-la-gaillarde, France  
olivier.jardel@3-5lab.fr

**Abstract**—We propose here a non-linear GaN HEMT model for CAD including a trapping effects description consistent with both small-signal and large-signal operating modes. It takes into account the dynamics of the traps and then allows to accurately model the modulated large signal characteristics that are encountered in telecommunication and radar signals. This model is elaborated through low-frequency S-parameter measurements complementary to more classical pulsed-IV characterizations. A  $8 \times 75 \mu\text{m}$  AlInN/GaN HEMT model was designed and particularly validated in large-signal pulsed RF operation. It is also shown that thermal and trapping effects have opposite effects on the output conductance, thus opening the way for separate characterizations of the two effects.

**Index Terms**—Trappings effects, thermal effects, low frequency S-parameters, CAD non-linear model, RF pulsed operation.

### I. INTRODUCTION

Gallium Nitride (GaN) High Electron Mobility Transistors (HEMT) on SiC are now recognized as good candidates for the development of a number of RF applications and notably Power Amplifiers (PA) for telecommunications and radars, due to their high breakdown voltage, their high cut-off frequency as well as their high temperature capabilities. However they are still subject to parasitics effects such as thermal effects and especially trapping effects. Those trapping effects have been extensively studied using a number of techniques such as pulsed measurements, load-pull measurements as well as frequency dispersion measurements. At the same time, models have been proposed that take those effects into account [1], [2], [3], and while the effects of traps are well taken into account in CW conditions, their impacts on dynamic large signal characteristics remain difficult to understand. They manifest themselves under modulated signals such as RF pulses or telecommunications signals. Memory effects are the main consequence of those trapping effects. In this paper we propose to investigate the dynamics of these trapping effects using large

account the dynamics of the traps. Finally we conclude and draw some perspectives.

### II. IMPACT OF TRAPS ON LARGE SIGNAL CHARACTERISTICS

One convenient way to identify the impact of trapping effects is to monitor the average drain current of the transistor versus an increasing RF input power. It has already been reported in [1] and [3] that this drain current under class-AB conditions decreases as the input power increases, contradicting the expected characteristics. Clearly this behavior cannot be explained by thermal behavior as far as the channel temperature sinks when the power increases and would leads, at least for moderate powers, to an average drain current enlargement.

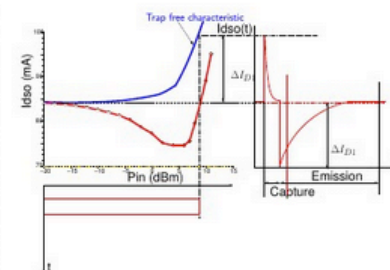


Fig. 1. Representation of the mechanism induced by traps on the average drain current.

Pulsed RF measurements were performed under DC bias on

# Edit underlying LaTeX source, if needed

The screenshot displays the Overleaf web editor interface. On the left, a file browser shows a project named 'main.tex'. The main area is split into two panes: 'Source' (left) and 'Preview' (right). The 'Source' pane shows LaTeX code for a document class, packages, and author information. The 'Preview' pane shows the rendered document, which is a paper titled 'Modeling of Trap Induced Dispersion of Large Signal Dynamic Characteristics of GaN HEMTs'. The paper includes an abstract, an introduction, and a figure showing the mechanism induced by traps on the average drain current.

```
1 \documentclass[conference]{IEEEtran}
2
3 \usepackage[utf8x]{inputenc}
4 \usepackage[english]{babel}
5 \usepackage[cmex10]{amsmath}
6
7 \usepackage{mathabx}
8 \usepackage{graphicx}
9 \usepackage{algoritmik}
10 \usepackage{array}
11 \usepackage{mdwmath}
12 \usepackage{mdwtab}
13 \usepackage{egparbox}
14 \usepackage{todonotes}
15 \usepackage{url}
16
17 \hyphenation{op-tical net-works semi-conduc-tor}
18
19 \begin{document}
20
21 \title{\LARGE Modeling of Trap Induced Dispersion of Large Signal
22 Dynamic Characteristics of GaN HEMTs}
23
24 \author{\authorblockN{
25 O. Jardel\authorrefmark{1},
26 S. Laurent\authorrefmark{2},
27 T. Reveyrand\authorrefmark{2},
28 R. Qu\`{e}r\`{e}\authorrefmark{2},
29 P. Nakkala\authorrefmark{2},
30 A. Martin\authorrefmark{2}
31 \S. Piotrowicz\authorrefmark{1},
32 M. Campovecchio\authorrefmark{2},
33 S.L. Delage\authorrefmark{1}
34 \authorblockA{\authorrefmark{1}\#
35 III-V Lab, route de Nozay, 91461 Marcoussis Cedex, France}
36 \authorblockA{\authorrefmark{2}\#
37 XLIM, 7 rue Jules Valles, 19100 Brive-la-gaillarde, France
38 \olivier.jardel@3-5lab.fr}}
39
40 \maketitle
41
42 \begin{abstract}
43 We propose here a non-linear GaN HEMT model for CAD including a
44 trapping effects description consistent with both small-signal
45 and large-signal operating modes. It takes into account the
46 dynamics of the traps and then allows to accurately model the
47 modulated large signal characteristics that are encountered in
48 telecommunication and radar signals. This model is elaborated
49 through low frequency S-parameter measurements complementary to
```

**Modeling of Trap Induced Dispersion of Large Signal Dynamic Characteristics of GaN HEMTs**

O. Jardel<sup>1</sup>, S. Laurent<sup>1</sup>, T. Reveyrand<sup>1</sup>, R. Quéré<sup>1</sup>, P. Nakkala<sup>1</sup>, A. Martin<sup>1</sup>,  
S. Piotrowicz<sup>2</sup>, M. Campovecchio<sup>1</sup>, S.L. Delage<sup>2</sup>  
<sup>1</sup>III-V Lab, route de Nozay, 91461 Marcoussis Cedex, France  
<sup>2</sup>XLIM, 7 rue Jules Valles, 19100 Brive-la-gaillarde, France  
olivier.jardel@3-5lab.fr

**Abstract**—We propose here a non-linear GaN HEMT model for CAD including a trapping effects description consistent with both small-signal and large-signal operating modes. It takes into account the dynamics of the traps and then allows to accurately model the modulated large signal characteristics that are encountered in telecommunication and radar signals. This model is elaborated through low-frequency S-parameter measurements complementary to more classical pulsed-IV characterizations. A 8x75<sub>μm</sub> AlInN/GaN HEMT model was designed and particularly validated in large-signal pulsed RF operation. It is also shown that thermal and trapping effects have opposite effects on the output conductance, thus opening the way for separate characterizations of the two effects.

**Index Terms**—Trapping effects, thermal effects, low frequency S-parameters, CAD non-linear model, RF pulsed operation.

**II. IMPACT OF TRAPS ON LARGE SIGNAL CHARACTERISTICS**

One convenient way to identify the impact of trapping effects is to monitor the average drain current of the transistor versus an increasing RF input power. It has already been reported in [1] and [3] that this drain current under class-AB conditions decreases as the input power increases, contradicting the expected characteristics. Clearly this behavior cannot be explained by thermal behavior as far as the channel temperature sinks when the power increases and would lead, at least for moderate powers, to an average drain current enlargement.

**I. INTRODUCTION**

Gallium Nitride (GaN) High Electron Mobility Transistors (HEMT) on SiC are now recognized as good candidates for the development of a number of RF applications and notably Power Amplifiers (PA) for telecommunications and radars, due to their high breakdown voltage, their high cut-off frequency as well as their high temperature capabilities. However they are still subject to parasitic effects such as thermal effects and especially trapping effects. Those trapping effects have been extensively studied using a number of techniques such as pulsed measurements, load-pull measurements as well as frequency dispersion measurements. At the same time, models have been proposed that take those effects into account [1], [2], [3], and while the effects of traps are well taken into account in CW conditions, their impacts on dynamic large signal characteristics remain difficult to understand. They manifest themselves under modulated signals such as RF pulses or telecommunications signals. Memory effects are the main consequence of those trapping effects. In this paper we propose to investigate the dynamics of those trapping effects using large signal pulsed load pull measurements as well as low frequency dispersion measurements. It will be shown that a consistent nonlinear model can be obtained that allows to describe the full dynamic behavior of GaN transistors. The paper is organized as follows: Section II describes the theoretical impact of traps on the average current obtained under pulsed load pull conditions. Section III presents the measurements performed on an AlInN/GaN 8x75<sub>μm</sub> HEMT and the results obtained using a large signal nonlinear electrothermal model taking into

Figure 1. Representation of the mechanism induced by traps on the average drain current.

Pulsed RF measurements were performed under DC bias on AlGaN/GaN and InAlN/GaN HEMTs of 8x75x0.25<sub>μm</sub><sup>2</sup> for a large number of output loads. For all devices, we obtain the same shape of the average drain current which is schematized in Figure 1. The average current decrease is due to the trap capture, which increases alike to the gate and drain voltage excursions versus the input power for a CW measurement. Indeed, the number of ionized traps is roughly proportional to the maximum value of the drain-source voltage, because of the dissymmetry of the capture and emission time constants



# In-line comments & tracked changes for review

Overleaf PROJECT VERSIONS COMPARE ? ⚙️ John Lees-Miller

Current version

Source Rich Text Edit Find § § B More

22 **{Introduction}**

23

24 Your introduction goes here! Some examples of commonly used commands and features are listed below, to help you get started. If you have a question, please use the help menu (``?) on the top bar to search for help or ask us a question.

**John Lees-Miller** about 2 hours ago:  
Seems punchier. OK?

**John Hammersley** replied about an hour ago:  
Yep.

**John Lees-Miller** closed this about an hour ago.

33

34 **{Some LaTeX Examples}**

35

36 **{How to Include Figures}**

37

Compared version (read only)

first draft Restore file

1

17

18 **Abstract**

19 Your abstract.

20

21

22 **{Introduction}**

23

24 This is where you write your introduction. Some examples of commonly used commands and features are listed below, to help you get started. If you have a question, please use the help menu (``?) on the top bar to search for help or ask us a question.

25

26 **{Some LaTeX Examples}**

27

28 **{How to Include Figures}**

29

30 First you have to upload the image file (JPEG, PNG or PDF) from your computer to writeLaTeX using the upload link the project menu. Then use the includegraphics command to include it in your document. Use the figure environment and the caption command to add a number and a caption to your figure. See the code for Figure `\ref{fig:frog}` in this section for an example.

31

32 `\begin{figure}`

33 `\centering`

# Integrated with other services, e.g. reference managers

**Overleaf** PROJECT VERSIONS SHARE PDF PUBLISH ? John Lees-Miller

Add files...





files

- lhr\_montage.png
- main.tex
- mdp\_c\_eval\_big\_fleet\_comp.pdf
- mdp\_c\_eval\_comp.pdf
- mdp\_c\_eval\_fleet\_comp.pdf
- mdp\_c\_eval\_method\_comp.pdf
- mdp\_c\_heathrow\_aerial.jpg
- mdp\_c\_heathrow\_model.png
- perfect\_info\_veh\_request\_graph
- slashbox.sty
- spbasic.bst
- svglow3.clo
- svjour3.cls

Download as ZIP

Save to Dropbox

### Add Bibliography

-  CiteULike is a free service for managing and discovering scholarly references.  
[Add CiteULike bibliography](#)
-  Zotero is a free, easy-to-use tool to help you collect, organize, cite, and share your research sources.  
[Add Zotero bibliography](#)
-  Mendeley is a free reference manager and academic social network. Make your own searchable library in seconds.  
[Add Mendeley bibliography](#)
-  You can upload a BibTeX (.bib) file that you maintain yourself or with another reference manager.  
[Upload a .bib file](#)

*Want to see more services here? [Let us know which ones](#), and please do let them know, too!*

system less attractive to passengers, but using it gives rise to a difficult stochastic optimisation problem. This paper develops three lower bounds on achievable mean passenger waiting time, one based on queuing theory, one based on the static problem, in which it is assumed that perfect information is available, and one based on a Markov Decision Process model. An evaluation of these lower bounds, together with a practical heuristic developed previously, in simulation shows that these lower bounds can often be nearly attained, particularly when the fleet size is large. The results also show that low waiting times and high utilisation can be simultaneously obtained when the fleet size is large, which suggests important economies of scale.

42

43

44 **{Introduction}**

45

46 Personal Rapid Transit (PRT) is an emerging urban transport mode. It uses small

Fig. 1. Illustration of driver vehicle and passenger car control units (1), vehicle waiting at the Platform (2) and vehicle and station in Business Parking lot. PRT vehicles, station and infrastructure are smaller than actual. Retrieved from: [https://www.prt.com/](#). Copyright © 2014, permission granted by the author.

# Direct submission to journals and repositories

The screenshot shows the Overleaf web interface. At the top, there is a navigation bar with icons for PROJECT, VERSIONS, SHARE, PDF, and PUBLISH. The user's name, John Lees-Miller, is visible in the top right corner. The main content area is a document titled "Minimizing Average Personal Rapid Transit (PRT) System". The document is divided into sections: Abstract, Introduction, and a section with line numbers 1, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48. The 'Publish' modal window is open, displaying a grid of submission options:

- Overleaf Gallery**: Quick and easy publishing for articles, reports and LaTeX templates and examples, right here on Overleaf. [Submit to Overleaf Gallery](#)
- F1000 Research**: The Open Science publishing platform for life scientists with immediate publication and transparent refereeing. [Submit to F1000Research](#)
- PeerJ**: PeerJ is an Open Access publisher of scholarly articles, serving the Biological and Medical sciences. [Submit to PeerJ or PeerJ PrePrints](#)
- figshare**: Get credit for all your research – free repository that makes all your research citable, shareable and discoverable. [Share PDF on figshare](#)
- arXiv.org**: arXiv is an open repository of scientific preprints in fields such as mathematics, physics, astronomy, computer science. [Submit your paper to the arXiv](#)
- bioRxiv**: bioRxiv is a non-profit online archive and distribution service for preprints in the life sciences. [Submit your paper to the bioRxiv](#)
- SCIENTIFIC DATA**: Open-access, peer-reviewed publication for descriptions of research datasets, from Nature Publishing Group. [Submit to Scientific Data](#)
- SCIENTIFIC REPORTS**: Online and open access, Scientific Reports is a primary research publication from the publishers of Nature. [Submit to Scientific Reports](#)

The document text includes:

**Abstract**

Personal Rapid Transit (PRT) is an conventional hackney taxi system between stations in a dedicated network operating in 2010 and 2011. In both cases, not book ahead. Perfect information about future requests and statistical information to position vehicles result, which makes difficult stochastic optimisation possible. In passenger waiting time, one based on the assumption that perfect information evaluation of these lower bounds, shows that these lower bounds can be achieved. Results also show that low waiting times are possible if fleet size is large, which suggests that

**Introduction**

Personal Rapid Transit (PRT) is an computer-guided vehicles to carry passengers on a dedicated network of

# Sample of current partners

- Nature Publishing Group (NPG)
- The Optical Society (OSA)
- Oxford University Press (OUP)
- Genetics Society of America (GSA)
- F1000Research
- PeerJ
- **Aries Systems** ☺
- ArXiv
- BioRxiv
- Figshare
- Editage (Cactus)
- Axios Review

# Fully integrated with F1000Research for editorial workflow

*“The integration of Overleaf into our editorial workflow enabled the swift processing of the authors' manuscripts and simplified the procedure for our pre-publication checks.”*

**F1000Research**  
AN OPEN SCIENCE JOURNAL FOR LIFE SCIENTISTS

# Branded version of the editor allows for customizations

The screenshot displays the F1000Research branded Overleaf editor. The top navigation bar includes the F1000Research logo, PROJECT, VERSIONS, SHARE, PDF, and SUBMIT TO F1000RESEARCH buttons. The main editing area is titled "F1000Research Article Template" and contains the following text:

1  
26 Please list all authors that played a significant role in the research involved in the article. Please provide full affiliation information (including full institutional address, ZIP code and e-mail address) for all authors, and identify who is/are the corresponding author(s).

27  
28 **Abstract**

29 Abstracts should be up to 300 words and provide a succinct summary of the article. Although the abstract should explain why the article might be interesting, care should be taken not to inappropriately over-emphasise the importance of the work described in the article. Citations should not be used in the abstract, and the use of abbreviations should be minimized.

30

31  
32 **{Introduction}**

33  
34 The format of the main body of the article is flexible: it should be concise and in the format most appropriate to displaying the content of the article.}

35  
36 Some examples of commonly used commands and features are listed below, to

The left sidebar shows a file explorer with files: F1000header.png, f1000\_styles.sty, frog.jpg, main.tex (selected), and sample.bib. Below the file list are buttons for "Download as zip" and "Save to Dropbox". The right sidebar shows a preview of the article template, including the title "F1000Research Article Template", author information fields, and the abstract and introduction sections.

# Custom submission links - automated pre-submission checks

The screenshot shows the Overleaf web interface. At the top, there are navigation buttons: PROJECT, VERSIONS, SHARE, PDF, and SUBMIT TO EMPH. Below these is a toolbar with options like Source, Rich Text, Edit, Find, and various text formatting icons. The main content area displays a LaTeX document titled "EMPH Clinical Br...". The document content includes a heading "Name of pathology/condition" and a section titled "{Instructions for Authors}". The instructions state: "You must use the titles for each column provided above. The first column condition from a clinical perspective. Fill this and the other two columns with appropriate text reflecting the type and size provided. Use accessible language that can be easily understood by non-specialists. The total word limit for the contents of these three columns is 600 words. This includes headings, text, references and figures (30 words must be deducted for each figure)." The "Publish" dialog box is open, showing the EMPH logo and the following text: "Evolution, Medicine, and Public Health (EMPH) is an open access journal that publishes original, rigorous applications of evolutionary thought to issues in medicine and public health. When you are ready to submit your manuscript to EMPH, please download the Input and Output files using the 'Download as ZIP' link below, and submit online via the EMPH submission site. Step 1: Download ZIP file with all the source files. Download PDF file of your manuscript. Step 2: [SUBMIT ONLINE NOW] Special Promotion: EMPH will be waiving submission fees throughout 2015! For more information on preparing your submission please see the EMPH author guidelines page."

Or pass directly into Aries Editorial Manager thru ingest service

# Transferred submission retains origin information

**Transferred Submissions - mary mary**

**Contents:** These submissions have been transferred from another publication. Please Use the "Edit Submission" link to verify that all required information has been entered and build the PDF, or send the submission back to the Author to do so. After the PDF is built and approved, the submission will remain in this folder so that you may make any additional edits, send it back to the author for approval or hold it here pending other communications. When the submission is ready for the usual workflow, use the "Transfer Complete" action link in this folder to move the submission into the normal Editorial workflow as a new submission. Use the up/down arrows to change the sort order.

Page: 1 of 1 (1 total submissions) Display 10 results per page.

Action	Article Type	Section/Category	Article Title	Author Name	Transferred From	Initial Date Submitted	Status Date	Current Status
<a href="#">Details</a> <a href="#">History</a> <a href="#">File Inventory</a> <a href="#">Edit Submission</a> <a href="#">Send Back to Author</a> <a href="#">Remove Submission</a>			Dietary protein and amino acid levels affect serum concentration and expression of GH, IGF-1, IGF-1R, and myosin, and performance of pigs	<a href="#">Satyajit Rout, PhD, MD</a>	Overleaf	Feb 25, 2015	Feb 25, 2015	Transferred Submission Received

Page: 1 of 1 (1 total submissions) Display 10 results per page.



# Custom templates and template landing pages

News: WriteLaTeX Relaunching as Overleaf

My Projects John Lees-Miller ▾



FEATURES & BENEFITS ▾

TEMPLATES

PRICING

COMPANY ▾

HELP

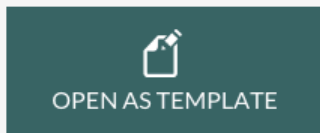
## Template for Data Descriptor submissions to Scientific Data



483 views

Author: Scientific Data (Nature Publishing Group)

License: Other (as stated in the work) <sup>(?)</sup>



View Source



Download PDF

**Abstract:** This is a manuscript template for Data Descriptor submissions to *Scientific Data*.

*Scientific Data* is an open-access, peer-reviewed publication for descriptions of scientifically valuable datasets. Their primary article-type, the **Data Descriptor**, is designed to make your data more discoverable, interpretable and reusable.

This template is provided by *Scientific Data* and *Overleaf* to make it easier for you and your co-authors to write your papers collaboratively online.

Once your Data Descriptor article is complete, you can submit directly to the *Scientific Data* editorial team from

SCIENTIFIC  
DATA

Overleaf

Data Descriptor Title (110 character maximum, inc. spaces)

Firstname Lastname<sup>1</sup>, Firstname Lastname<sup>2\*</sup>

February 24, 2015

<sup>1</sup>: An affiliation <sup>2</sup>: A different affiliation <sup>\*</sup>corresponding author(s): Firstname Lastname (email@address)

### Abstract

This is a manuscript template for Data Descriptor submissions to *Scientific Data* (<http://www.nature.com/scientificdata>). The abstract must be no longer than 170 words, and should succinctly describe the study, the assay(s) performed, the resulting data, and the reuse potential, but should not make any claims regarding new scientific findings. No references are allowed in this section.

### Background & Summary

(700 words maximum) An overview of the study design, the assay(s) performed, and the created data, including any background information needed to put this study in the context of previous work and the literature. The section should also briefly outline the broader goals that motivated the creation of this dataset and the potential reuse value. We also encourage authors to include a figure that provides a schematic overview of the study and assay(s) design. This section and the other main body sections of the manuscript should include citations to the literature as needed [1, 2]. References should be included within the manuscript file itself as our system cannot accept BibTeX bibliography files. Authors who wish to use BibTeX to prepare their references should therefore copy the reference list from the .bib file that BibTeX generates and paste it into the main manuscript .tex file (and delete the associated \bibliography and \bibliographystyle commands).

### Methods

The Methods should include detailed text describing any steps or procedures used in producing the data, including full descriptions of the experimental design, data acquisition assays, and any computational processing (e.g. normalization, image feature extraction). Related methods should be grouped under



# Overleaf for institutions at Stanford



[Home](#) > [About](#) > [Blogs](#) > [Stanford Libraries Blog](#) > [Overleaf/WriteLaTeX: trial access for one year \(Jan-Dec 2015\)](#)

## Overleaf/WriteLaTeX: trial access for one year (Jan-Dec 2015)

### Topics

[Engineering](#)  
[Science](#)



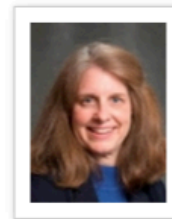
Overleaf is a new collaborative writing and publishing system developed by the team behind the popular WriteLaTeX editor. Overleaf is designed to make the process of writing, editing and producing scientific papers much quicker for both authors and publishers. Overleaf/WriteLaTeX can also be linked to your Mendeley account for quick import of your Mendeley reference library.

The Stanford University Libraries are sponsoring a [one year free trial](#) of Overleaf/WriteLaTeX for all students, faculty and staff who would like to use a collaborative, online LaTeX editor for their projects.

Some of the [features](#) of Overleaf/WriteLaTeX include:

- Online collaboration, rich text editing or full online LaTeX editing. If you prefer to edit directly in LaTeX, Overleaf provides a full collaborative online LaTeX editor you can switch to at any time.
- Real-time collaboration in your browser for sharing and editing [protected projects](#) with authorized users. You can add and remove collaborators at any time.


### Author



#### [Helen B Josephine](#)

Head of the Terman Engineering Library

 [helenj@stanford.edu](mailto:helenj@stanford.edu)

 (650) 725-1012

### Recent posts

[Gear Up for Research Day, Monday April 6, 2015](#)

Posted in [Stanford Libraries Blog](#)

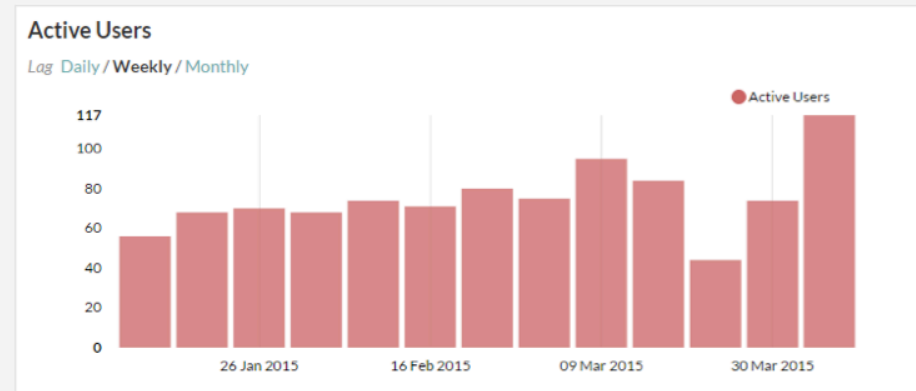
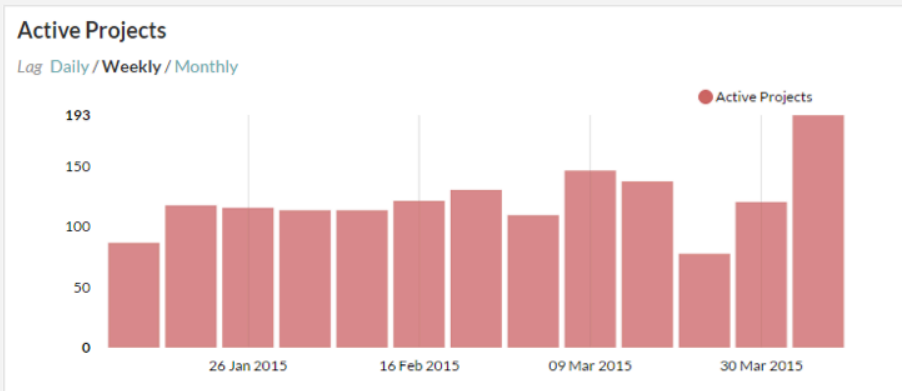
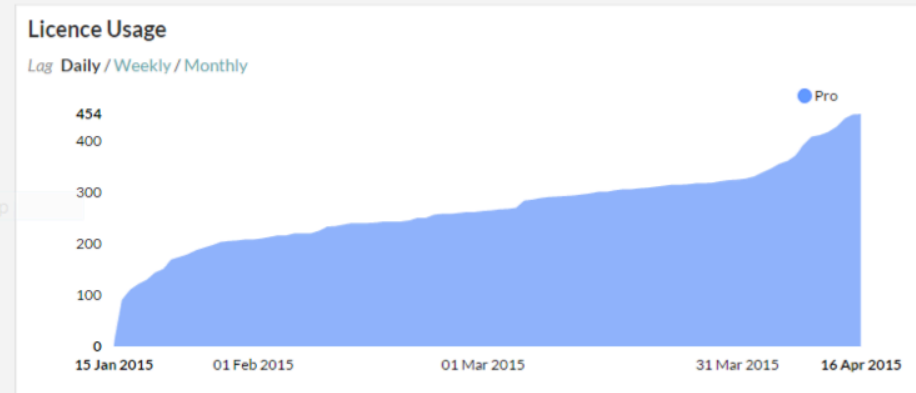
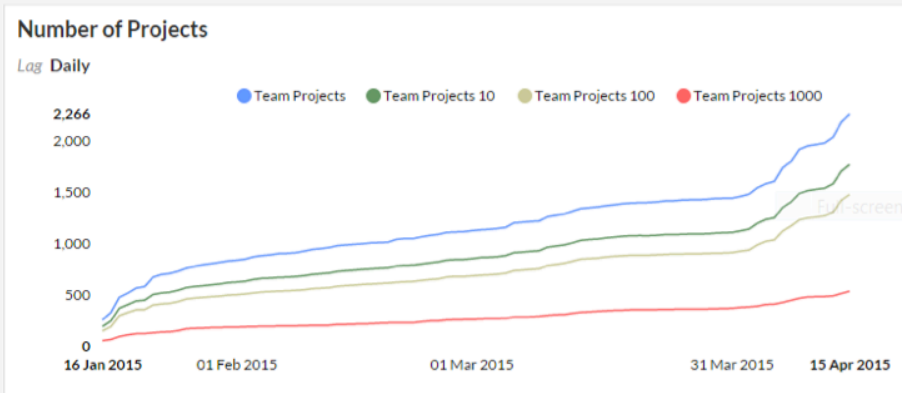
[Overleaf trial--feedback request](#)

Posted in [Stanford Libraries Blog](#)

[Mendeley Workshops, January 27, 29, 30 in Huang 203](#)

Posted in [Stanford Libraries Blog](#)

# Metrics: providing data on usage, collaborations & outputs



Surveys help collect & evaluate user feedback.



## Collaborative writing, reviewing and publishing tools

Mary Anne Baynes  
@mgbaynes

Maryanne.Baynes@overleaf.com

[www.overleaf.com](http://www.overleaf.com)