








1st 2018/19 GouTP @ SCEE

- *About:* **Searching and Organizing Your Bibliographic References**
- *Date:* 25th of October 2018 
- *Who:* [Lilian Besson](#) and [Bastien Trotobas](#) and [Nabil Zeraneh](#) 🙌

Open source content ?

Note: slides are online: github.com/Naereen/slides/tree/master/2018_10__Looking_for_and_organizing_your_bibliographic_references__GouTP_at_CentraleSupelec

What's a "GouTP" ?

- Internal monthly technical training session 
- Usually: on *Thursday*, at 3pm  - 3:30pm 
- With  coffee,  tea and  sweets: we relax while training !

Initiative of Quentin and Vincent  in January 2017...

Continued by Rémi, Muhammad, Rami and Lilian  !

Not only @ SCEE ?

- Now open to all the PhD students of CentraleSupélec, campus of Rennes.

Agenda for today

1. Quick presentation of internal tools @ SCEE
2. How to look for bibliographic references?
3. How to organize your references: Zotero, JabRef & others.

Please 

Ask questions and interrupt me if you want!

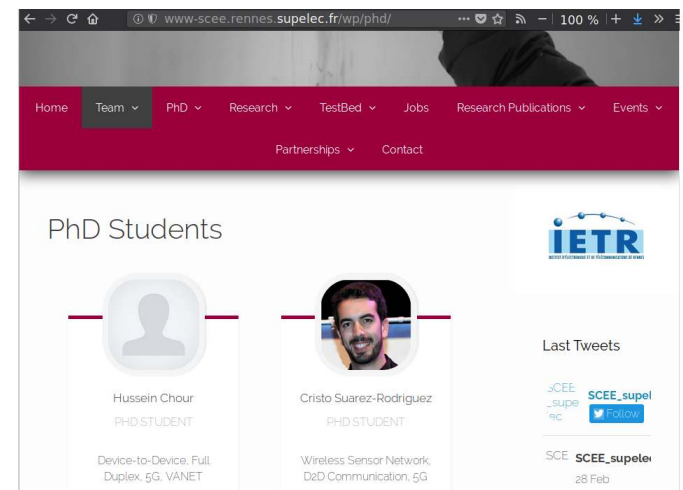
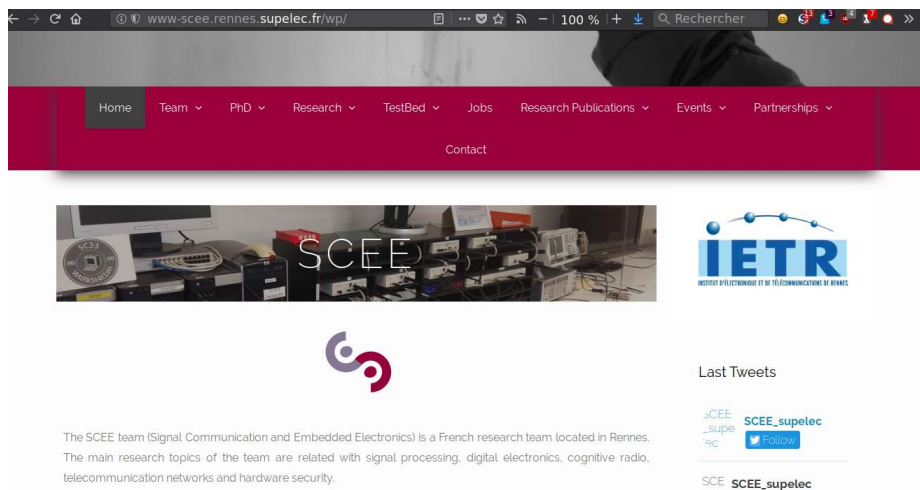
1. Presentation of internal tools @ SCEE

- Welcome to our new PhD student and interns 🙌 !
- You met (almost) everybody this week !
- You will become familiar with the research themes of our team...

↳ Let see a few  tools that can make your life easier!

Website

- www-scee.rennes.supelec.fr was created by Rémi and Aymeric
- It is maintained by Karim and Majed

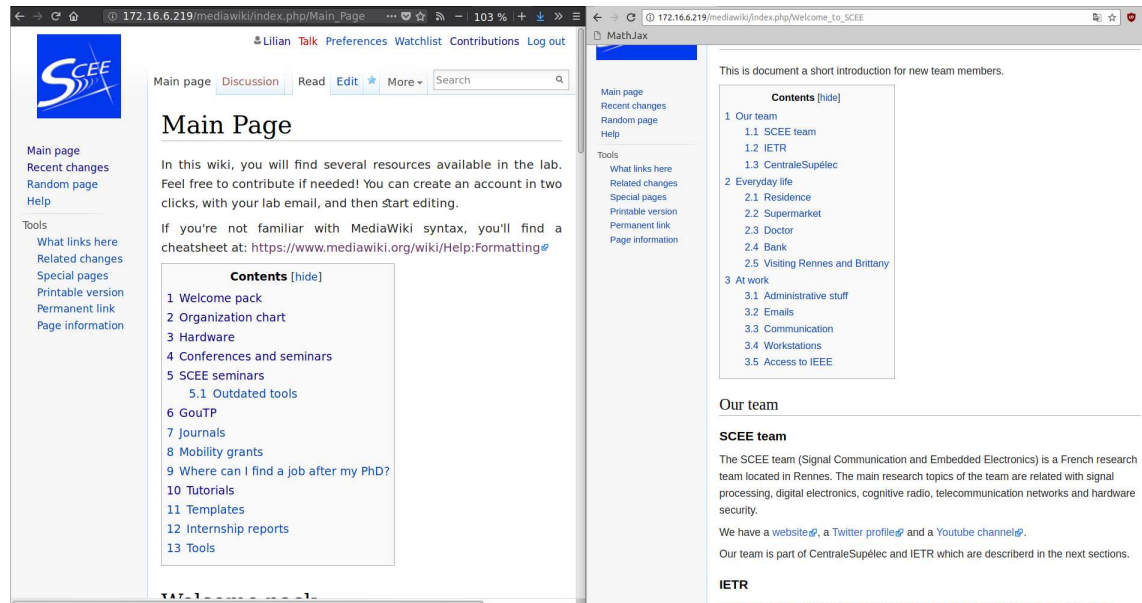


New comers, please

- send a short summary of your research interest with links to your LinkedIn, Google Scholar profile (or other sites). Picture: *if you want*
- **to Karim and Majed** so we add you on the website


Internal Wiki

- We have a MediaWiki running locally on <http://172.16.6.219/>
- Welcome pack : can be useful in your first days here!
http://172.16.6.219/mediawiki/index.php/Welcome_to_SCEE
- Anyone can edit, it is maintained by Bastien and Lilian
- Participate if you have anything to change (create an account, edit!)



The image shows two browser windows side-by-side. The left window displays the 'Main Page' of the SCEE Internal Wiki. It features the SCEE logo, navigation links (Main page, Discussion, Read, Edit, More), a search bar, and a table of contents with 13 items including 'Welcome pack', 'Organization chart', 'Hardware', 'Conferences and seminars', 'SCEE seminars', 'GouTP', 'Journals', 'Mobility grants', 'Where can I find a job after my PhD?', 'Tutorials', 'Templates', 'Internship reports', and 'Tools'. The right window displays the 'Welcome to SCEE' page, which includes a table of contents with 13 items: 'Our team', 'SCEE team', 'Everyday life', 'At work', and 'Our team'. The 'SCEE team' section provides a brief description of the team's research focus and mentions their website, Twitter profile, and YouTube channel.

Workstations (Windows & GNU/Linux)

- 2 Windows 7 workstations, with MATLAB
 - WS1 : 172.16.6.211
 - WS2 : 172.16.6.212
- 1 GNU/Linux (Ubuntu) workstation, with Python, GNU Radio...
 - WS3 : 172.16.6.213
- Powerful machines: 12 cores, 32 Gb of RAM, lots of storage...
- Monitoring  : <http://172.16.6.219:8000> (ask us for **id/passwd**)
(please check for use load, before launching heavy simulations)



Ask for an account if you need

- To run computations, or to use the TestBed
- Ask to *Rami* for Windows, to *Lilian* for GNU/Linux

172.16.6.219:8000

SCEE Workstations - Bloc-notes

```

===== SCEE Workstations =====
- 172.16.6.211 : T581001 (windows7)      - WS1
- 172.16.6.212 : RFDET5801 (windows7)   - WS2
- 172.16.6.213 : RPDLE501 (LinuxMate)  WS3 & Testbed

+ Browse to http://172.16.6.219:8000/ for a live view
+ Browse to http://172.16.6.213/ for Munin Monitoring
Help ? If needed: @admin on https://SceeTeam.Slack.com/
? or talk directly to: Lilian or Rami

```

172.16.6.213 - Connexion Bureau à distance

Moniteur système

Processus Ressources Systèmes de fichiers

Historique d'utilisation du CPU

CPU1 58,0%	CPU2 55,6%	CPU3 33,7%	CPU4 43,4%
CPU5 32,7%	CPU6 39,0%	CPU7 67,3%	CPU8 58,4%
CPU9 19,8%	CPU10 25,7%	CPU11 22,8%	CPU12 28,3%

Historique d'utilisation de la mémoire physique et du fichier d'échange

Mémoire: 7,9 Gio (25,2%) sur 31,3 Gio

Swap: 0 octet (0,0%) sur 31,9 Gio

Historique du trafic réseau

Réception: 15,1 Kio/s
Total reçu: 8,3 Gio

Envoi: 446,3 Kio/s
Total envoyé: 146,5 Gio

172.16.6.211 - Connexion Bureau à distance

CPU Usage: 59 %

Memory: 14,7 GB

Physical Memory Usage History

Physical Memory (MB)	System
Total: 32692	Handles: 105588
Cached: 10336	Threads: 2729
Available: 17619	Processes: 169
Free: 7424	Up Time: 111:13:53:03
	Commit (GB): 20 / 79

Kernel Memory (MB)

Paged: 1116
Nonpaged: 535

Processes: 169 CPU Usage: 59% Physical Memon: 46%

172.16.6.212 - Connexion Bureau à distance

UC utilisée: 5 %

Mémoire: 21,1 Go

Mémoire physique (Mo)	Système
Totale: 32692	Handles: 63353
En mémoire cache: 11254	Threads: 2223
Disponible: 11046	Processus: 148
Libre: 0	En activité: 198:08:36:05
	Valider (Go): 22 / 79

Screen Task

Open Source

IP: 172.16.6.219 - Connexion au réseau local Port: 8000

URL: http://172.16.6.219:8000

USRP TestBeds

- We have 8 USRP cards that can be used from GNU Radio Companion on the WS3
- See more on http://172.16.6.219/mediawiki/index.php/Main_Page#Hardware

Monitoring

- <http://172.16.6.213:8000> (made by Quentin)
- let you see the IP of each USRP card
- and who uses what in real time

Advice

- If you need to use the USRP, *discuss with Nabil and Lilian before*

172.16.6.213:8000

SCEE Testbed Monitor

Kit N°1 192.168.10.101 Disconnected	Kit N°2 192.168.10.102 Disconnected	Kit N°3 192.168.10.103 Free to use	Kit N°4 192.168.10.104 Free to use	Kit N°5 192.168.10.105 Free to use
Kit N°6 192.168.10.106 Free to use	Kit N°7 192.168.10.107 Free to use	Kit N°8 192.168.10.108 Free to use	Kit N°9 192.168.10.109 Disconnected	Kit N°10 192.168.10.110 Free to use
Kit N°11 192.168.10.111 Free to use	Kit N°12 192.168.10.112 Disconnected	Kit N°13 192.168.10.113 Disconnected	Kit N°14 192.168.10.114 Disconnected	Kit N°15 192.168.10.115 Disconnected
Kit N°16 192.168.10.116 Disconnected	Kit N°17 192.168.10.117 Disconnected	Kit N°18 192.168.10.118 Disconnected	Kit N°19 192.168.10.119 Disconnected	Kit N°20 192.168.10.120 Disconnected

2. How to look for bibliographic references?

! Do we need references?

- Yes

! But just for the paper right?

- No: you need references *at every step* of our research job!

! How to find references?

- We will see some techniques

Reading papers

- Each research paper has a list of references
- This always gives an easy way to find new references: just go read every quoted paper!

experiment with the code.

References

- Lilian Besson and Emilie Kaufmann. What Doubling Trick Can and Can't Do for Multi-Armed Bandits. Preprint, February 2018a. URL hal.inria.fr/hal-01736357.
- Lilian Besson and Emilie Kaufmann. Multi-Player Bandits Revisited. In *Algorithmic Learning Theory*, Lanzarote, Spain, April 2018b. URL hal.inria.fr/hal-01629733.
- Lilian Besson, Emilie Kaufmann, and Christophe Moy. Aggregation of Multi-Armed Bandits Learning Algorithms for Opportunistic Spectrum Access. In *IEEE WCNC - IEEE Wireless Communications and Networking Conference*, Barcelona, Spain, April 2018. URL hal.inria.fr/hal-01705292.
- Georg Brandl et al. Sphinx: Python documentation generator, 2018. URL www.sphinx-doc.org.
- Sébastien Bubeck and Nicolò Cesa-Bianchi. Regret Analysis of Stochastic and Non-Stochastic Multi-Armed Bandit Problems. *Foundations and Trends® in Machine Learning*, 5(1), 2012.
- Olivier Chapelle and Lihong Li. An Empirical Evaluation of Thompson Sampling. In *Advances in Neural Information Processing Systems*, pages 2249–2257. Curran Associates, Inc., 2011.

6. See the page SMPyBandits.GitHub.io/DoublingTrick on the documentation.

Note: the simulation code used for the experiments in Section 5 is for MATLAB or GNU Octave, and is open-sourced under the MIT License, at: https://Bitbucket.org/scee_ietr/rl_slotted_iot_networks.

References

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2. T. L. Lai and H. Robbins, "Asymptotically efficient adaptive allocation rules," *Advances in Applied Mathematics*, vol. 6, no. 1, pp. 4–22, 1985.
3. S. Bubeck, N. Cesa-Bianchi, *et al.*, "Regret analysis of Stochastic and Non-Stochastic Multi-Armed Bandit Problems," *Foundations and Trends® in Machine Learning*, vol. 5, no. 1, pp. 1–122, 2012.
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6. S. Agrawal and N. Goyal, "Analysis of Thompson sampling for the Multi-Armed Bandit problem," in *JMLR, Conference On Learning Theory*, pp. 39–1, 2012.
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10. V. Toldov, L. Clavier, V. Loscr, and N. Mitton, "A Thompson Sampling approach to channel exploration-exploitation problem in multihop cognitive radio networks," in *PIMRC*, pp. 1–6, 2016.
11. R. Bonnefoi, C. Moy, and J. Palicot, "Advanced metering infrastructure backhaul reliability improvement with Cogn.Radio," in *SmartGridComm*, pp. 230–236, 2016.
12. S. Boyd and L. Vandenberghe, *Convex Optimization*. Cambridge Univ. Press, 2004.
13. D. G. Luenberger, "Quasi-convex programming," *SIAM Journal on Applied Mathematics*, vol. 16, no. 5, pp. 1090–1095, 1968.
14. M. E. Yaari, "A note on separability and quasiconcavity," *Econometrica*, vol. 45, no. 5, pp. 1183–1186, 1977.

Looking by keyword

- Try to look for some keywords, in Google Scholar, Google, DuckDuckGo, ResearchGate etc
- ⚠ Some keywords will give *a lot* of results!
- Filter by language! Filter by date!
- Combine keywords!



Bandit and Internet-of-Things



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[PDF] [Multi-Armed Bandit Learning in IoT Networks - Archive ouverte HAL](#)

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by R Bonnefoi - 2017 - Cited by 9 - Related articles

Jul 2, 2018 - Multi-Armed **Bandit** Learning in IoT Networks: Learning helps even in non-stationary settings. Rémi Bonnefoi, Lilian Besson, Christophe Moy, ...

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Sep 4, 2018 - Setting up the future Internet of Things (IoT) networks will require to support ... **Bandit** (MAB) learning algorithms to improve resource exploitation.

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Nov 7, 2016 - PDF | The number of connected devices and services available across the Internet of Things (IoT) is rapidly expanding. In this paper, we ...

[A Bandit Approach for Intelligent IoT Service Composition ... - Doi.org](#)



open-source multi-armed bandit python library



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GitHub - bgalbraith/bandits: Python library for Multi-Armed Bandits

<https://github.com/bgalbraith/bandits> ▼

Python library for **Multi-Armed Bandits**. Contribute to bgalbraith/bandits development by creating an account on GitHub.

Topic: multi-armed-bandit · GitHub

<https://github.com/topics/multi-armed-bandit> ▼

A **multi-armed bandit library** for **Python** ... A simple implementation of the multi_arm_bandit problem which can be used in **Open AI gym** as well.

SMPyBandits · PyPI

<https://pypi.org/project/SMPyBandits/> ▼

Mar 7, 2018 - SMPyBandits: **Open-Source Python package** for Single- and Multi-Players **multi-armed Bandits** algorithms.

[PDF] SMPyBandits: an Open-Source Research Framework for Single and ...

https://perso.crans.org/besson/articles/SMPyBandits__Long_Version__02-2018.pdf ▼

by L Besson - 2018 - [Related articles](#)

Feb 28, 2018 - algorithms and in different variations of the **multi-armed bandits** problem. Contents ...

This **Python package** is the most complete **open-source** ...

Welcome to SMPyBandits documentation! — SMPyBandits 0.9.2 ...

Looking by author

- If you know an author, it's easy to find his/her work
- It usually gives good references on related work!

Example?

- For examples, with my advisor Émilie Kaufmann...



emilie kaufmann



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Emilie Kaufmann - Inria

chercheurs.lille.inria.fr/ekaufman/ ▼

Welcome to my professional webpage. I am a CNRS Junior Researcher in the CRISAL at Université de Lille. I am also a member of the Inria team Sequel.

Research

Emilie Kaufmann, Wouter Koolen and Aurélien Garivier ...

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Un point de vue bayésien pour ...

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Emilie Kaufmann - Citations Google Scholar

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Thompson sampling: An asymptotically optimal finite-time analysis. E Kaufmann, N Korda, R Munos. International Conference on Algorithmic Learning Theory, ...

dblp: Emilie Kaufmann

<https://dblp.org> > Persons ▼

Aug 23, 2018 - List of computer science publications by Emilie Kaufmann.



Emilie Kaufmann

CNRS Junior Researcher at CRIStAL
emilie.kaufmann"at"univ-lille.fr

iot 1/1 ^ v x

Inria Lille - Nord Europe
Equipe SequeL, Bureau A07
40, avenue du Halley
59650 Villeneuve d'Ascq, FRANCE
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2017

- [Learning the distribution with largest mean: two bandit frameworks](#). Emilie Kaufmann and Aurélien Garivier. ESAIM: Proceedings and Surveys, Vol 60:114-131.
- [Monte-Carlo Tree Search by Best Arm Identification](#). Emilie Kaufmann and Wouter M. Koolen. Advances in Neural Processing Systems (NIPS).
- [Multi-Armed Bandit Learning in IoT Networks: Learning helps even in non-stationary settings](#). Rémi Bonnefoi, Lilian Besson, Christophe Moy, Emilie Kaufmann and Jacques Palicot. International Conference on Cognitive Radio Oriented Wireless Networks (CROWNCOM). (best paper award)
- [A Spectral Algorithm with Additive Clustering for the Recovery of Overlapping Communities in Networks](#). Emilie Kaufmann, Thomas Bonald and Marc Lelarge. Journal of Theoretical Computer Science.
- [On Bayesian Index Policies for Sequential Resource Allocation](#). Emilie Kaufmann. Annals of Statistics, Vol 46(2): 842-865.

2016

- [Modèles de bandit : une histoire bayésienne et fréquentiste](#) (survey paper in French). MATAPLI 109:51-64, 2016.
- [On Explore-Then-Commit Strategies](#). Aurélien Garivier, Emilie Kaufmann and Tor Lattimore. Advances in Neural Processing Systems (NIPS).

Google Scholar

- Many researchers have a Google Scholar profile
- But it is also very useful to look for new references



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Multi-Armed Bandit Learning in IoT Networks: Learning helps even in non-stationary settings

[R Bonnefoi](#), [L Besson](#), [C Moy](#), [E Kaufmann](#)... - ... *Wireless Networks*, 2017 - Springer

Abstract Setting up the future **Internet of Things (IoT) networks** will require to support more and more communicating devices. We prove that intelligent devices in unlicensed bands can use Multi-Armed **Bandit (MAB) learning** algorithms to improve resource exploitation. We ...

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[PDF] [archives-ouvertes.fr](#)

Multi-armed bandit channel access scheme with cognitive radio technology in wireless sensor networks for the internet of things

[J Zhu](#), [Y Song](#), [D Jiang](#), [H Song](#) - *IEEE access*, 2016 - [ieeexplore.ieee.org](#)

... of applica- tions various domains [2]–[16], big data applications, **Internet of Things**, E-commerce ... When cognitive users, namely, sensor nodes in wireless sensor **networks** access the spectrum ... **Bandit** Channel Access Scheme With Cognitive Radio Technology in WSNs for the **IoT** ...

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[PDF] [ieee.org](#)

Machine learning paradigms for next-generation wireless networks

[C Jiang](#), [H Zhang](#), [Y Ren](#), [Z Han](#)... - *IEEE Wireless ...*, 2017 - [ieeexplore.ieee.org](#)

... This problem has indeed been encountered in many wireless **networking** sce- narios, with a compelling one being the channel ... vice (D2D) communication system integrated into a cellular **network**, and another one in the context of emerging next-generation **networks** [16] ...

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[PDF] [soton.ac.uk](#)

Bridging e-health and the internet of things: The sphere project

[N Zhu](#), [T Diethe](#), [M Camplani](#), [L Tao](#)... - *IEEE Intelligent ...*, 2015 - [ieeexplore.ieee.org](#)

... aims is to integrate these various sensing modal- ities into an **Internet of Things (IoT)** solution for ... under- pin a multimodality sensor system in a smart home, the **IoT** infrastructure must ... Additional advantages can be gained through IP-**enabled sens- ing networks** because they ...

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A non-parametric test of independence

W Hoeffding - The annals of mathematical statistics, 1948 - JSTOR

A test is proposed for the independence of two random variables with continuous distribution function (df). The test is consistent with respect to the class Ω'' of df's with continuous joint and marginal probability densities (pd). The test statistic D depends only on the rank order of ...

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[PDF] projecteuclid.org

The central limit theorem for dependent random variables

W Hoeffding, H Robbins - Duke Mathematical Journal, 1948 - projecteuclid.org

Introduction. The central limit theorem has been extended to the case of dependent random variables by several authors (Bruns, Markoff, S. Bernstein, P. L6vy Love). The conditions under which these theorems are stated either tre very restrictive or involve ...

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On the distribution of the number of successes in independent trials

W Hoeffding - The Annals of Mathematical Statistics, 1956 - projecteuclid.org

Let S_j be the number of successes in n_j independent trials, and let p_j denote the probability of success in the j th trial, $j = 1, 2, \dots, n$ (Poisson trials). We consider the problem of finding the maximum and the minimum of $Eg(S)$, S the expected value of a ...

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[PDF] projecteuclid.org

The large-sample power of tests based on permutations of observations

W Hoeffding - The Annals of Mathematical Statistics, 1952 - JSTOR

The paper investigates the power of a family of nonparametric tests which includes those known as tests based on permutations of observations. Under general conditions the tests are found to be asymptotically (as the sample size tends to ∞) as powerful as certain related ...

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projecteuclid.org

ResearchGate

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- But it is also very useful to look for new references
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Warning!

-  they have a very aggressive copyright policy!
- Suggestion: do as Rémi:
only upload a one-page PDF that links to the HAL version

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Chapter · January 2018
DOI: 10.1007/978-3-319-70874-1_15

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Rémi Bonnefoi⁽¹⁾, Lilian Besson^{(1)(*)}, Christophe Moy⁽¹⁾, Emilie Kaufmann⁽²⁾ and Jacques Palicot⁽¹⁾
⁽¹⁾CentraleSupélec / IETR, CentraleSupélec Campus de Rennes Avenue de la Boulaie, 35510 Cesson-Sévigné, France
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Rémi Bonnefoi | PhD s x +
https://remibonnefoi.wordpress.com

[C11] – Bonnefoi, R.; Moy, C.; Palicot, J.; Naikha A. "Low-Complexity Antenna Selection for Minimizing the Power Consumption of a MIMO Base Station", AICT 2018, July 2018. [🔗](#) 🏆

[C10] – Bonnefoi, R.; Tarcisio, M.; C. Estêvão Fernandes "Latency Efficient Request Access Rate for Congestion Reduction in LTE MTC", ICT, June 2018. [🔗](#)

[C9] – Bonnefoi, R.; Besson, L.; Moy, C.; Kaufmann, E.; Palicot, J. "Multi-Armed Bandit Learning in IoT Networks: Learning helps even in non-stationary settings", CROWNCOM, September 2017. [🔗](#) 🏆 (Best Paper Award)

[C8] – Bonnefoi, R.; Moy, C.; Palicot, J. "Mises en veille dynamique pour Minimiser la Consommation d'Energie d'une Station de Base", Colloque GRETSI, Septembre 2017. [🔗](#) 🏆

[C7] – Bonnefoi, R.; Moy, C.; Palicot, J. "Framework for Hierarchical and Distributed Smart Grid Management", URSI GASS, August 2017. [🔗](#)

[C6] – Bonnefoi, R.; Moy, C.; Farès, H.; Palicot, J. "Power Allocation for Minimizing Energy Consumption of OFDMA Downlink with Cell DTx", ICT, May 2017. [🔗](#) 🏆

[C5] – Bonnefoi, R.; Nafkha, A. "A New Lower Bound on the Ergodic Capacity of Optical MIMO Channels", ICC, May 2017. [🔗](#) 

Showing 1-2 of 2 results for all: Multi-Armed Bandit Learning IoT

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Multi-Armed Bandit Learning IoT All fields Search

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1. [arXiv:1807.00491](#) [pdf, ps, other] [cs.NI](#)

Multi-Armed Bandit Learning in IoT Networks: Learning helps even in non-stationary settings

Authors: Rémi Bonnefoi, Lilian Besson, Christophe Moy, Emilie Kaufmann, Jacques Palicot

Abstract: Setting up the future Internet of Things (IoT) networks will require to support more and more communicating devices. We prove that intelligent devices in unlicensed bands can use... [More](#)

Submitted 2 July, 2018; originally announced July 2018.

Journal ref: CROWNCOM 2017 - 12th EAI International Conference on Cognitive Radio Oriented Wireless Networks, Sep 2017,

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multiplayer bandit

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An Asymptotically Optimal Algorithm for Communicating Multiplayer Multi-Armed Bandit Problems 1712.00656v1 [pdf](#)
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Noyan Evrigen, Alper Kose, Hakan Gokcesu
 12/2/2017 cs.LG

This work is an extension of the paper [arXiv:1711.01628] which has been accepted to the 2017 IEEE...

We consider a decentralized stochastic multi-armed bandit problem with multiple players. Each player aims to maximize his/her own reward by pulling an arm. The arms give rewards based on i.i.d. stochastic Bernoulli distributions. Players are not aware about the probability distributions of the arms. At the end of each turn, the players inform their neighbors about the arm he/she pulled and the reward he/she got. Neighbors of players are determined according to an Erdős-Rényi graph with connectivity α . This graph is reproduced in the beginning of every turn with the same connectivity. When more than one player choose the same arm in a turn, we assume that only one of the players who is randomly chosen gets the reward where the others get nothing. We first start by assuming players are not aware of the collision model and offer an asymptotically optimal algorithm for $\alpha = 1$ case. Then, we extend our prior work and offer an asymptotically optimal algorithm for any connectivity but zero, assuming players aware of the collision model. We also study the effect of α , the degree of communication between players, empirically on the cumulative regret by comparing them with traditional multi-armed bandit algorithms.

The Effect of Communication on Noncooperative Multiplayer Multi-Armed Bandit Problems 1711.01628v1 [pdf](#)
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Noyan Evrigen, Alper Kose
 11/5/2017 cs.LG

This work has been accepted to the 2017 IEEE ICMLA

Recherche

Filtres

- Type de document x
- Type de dépôt x
- Tous x

8 résultats

enregistrer la recherche

TYPE DE DOCUMENT

- Communication dans un
 - congrès (3)
- Pré-publication, Document
 - de travail (2)
- Article dans une revue (1)
- Rapport (1)
- Thèse (1)

AUTEUR

- Filter
- Robin Allesiardo (1)
 - Lilian Besson (1)
 - A. Garivier (1)
 - Nobuyuki Hanaki (1)
 - Emilie Kaufmann (1)
 - Alan Kirman (1)
 - Wouter Koolen (1)
 - Odalric-Ambrym
 - Maillard (1)
 - Rémi Munos (1)
 - Paul Pezanis-Christou (1)

multi-player bandit

Rechercher

+ Recherche avancée...

Tri Nombre Outils

- hal-00562257v2 **Pré-publication, Document de travail**
Antoine Salomon. **Large Bandit Games**
2010
- tel-01420663v3 **Thèse**
Robin Allesiardo. **Bandits Manchots sur Flux de Données Non Stationnaires**
Intelligence artificielle [cs.AI]. Université Paris-Saclay, 2016. Français. <NNT : 2016SACLS334>
- halshs-01723513v1 **Article dans une revue**
Nobuyuki Hanaki, Alan Kirman, Paul Pezanis-Christou. **Observational and reinforcement pattern-learning: An exploratory study ***
European Economic Review, Elsevier, 2018, 104, pp.1 - 21. <10.1016/j.euroecorev.2018.01.009>
- hal-01840022v1 **Pré-publication, Document de travail**
Lilian Besson. **SMPyBandits: an Experimental Framework for Single and Multi-Players Multi-Arms Bandits Algorithms in Python**
2018
- inria-00433866v1 **Communication dans un congrès**
Philippe Rolet, Michèle Sebag, Olivier Teytaud. **Boosting Active Learning to Optimality: a Tractable Monte-Carlo, Billiard-based Algorithm**
2014

IEEE Xplore Search Results

https://ieeexplore.ieee.org/search/searchresult.jsp?newsearch=true&queryText=Multi-Armed%20Bandit%20Learning%20in%20IoT%20Networks

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All Enter keywords or phrases (Note: Searches metadata only by default. A search for 'smart grid' = 'smart AND grid') Advanced Search Other Search Options

Search within results Show: All Results Per Page: 25 Export Set Search Alerts Search History

Displaying results 1-3 of 3 for **Multi-Armed Bandit Learning in IoT Networks**

Journals & Magazines (2) Conferences (1)

Year Select All on Page Sort By: Relevance

Single Year Range

2016 2018

From To

2016 2018

Author

Affiliation

Multi-Armed Bandit Channel Access Scheme With Cognitive Radio Technology in Wireless Sensor Networks for the Internet of Things

Jiang Zhu ; Yonghui Song ; Dingde Jiang ; Houbing Song

IEEE Access

Year: 2016 , Volume: 4

Page s: 4609 - 4617

Cited by: Papers (17)

IEEE Journals & Magazines

Abstract (html) (6428 Kb)


Social Intimacy Based IoT Services Mining of Massive Data

Anni Zhou ; Yinan Feng ; Pan Zhou ; Jie Xu

2017 IEEE International Conference on Data Mining Workshops (ICDMW)

Year: 2017

⚠ Don't do it!



The image is a screenshot of a web browser displaying the Sci-Hub website. The browser's address bar shows the URL 'sci-hub.tw' and a warning 'Non sécurisé'. The website features a brick wall background. On the left, there is a black crow holding a red key. The main heading 'SCI-HUB' is in large red letters, with the tagline '...to remove all barriers in the way of science' below it. A search bar contains the text 'Multi-Armed Bandit Learning in IoT Networks'. To the right of the search bar is a red button with a key icon and the word 'open'. A gold medal icon with a ribbon is in the top right corner, accompanied by the text 'the first website in the world to provide mass & public access to research papers'. The footer contains links for 'about', 'ideas', 'community', and 'donate'.

How to write paper and insert bibliography

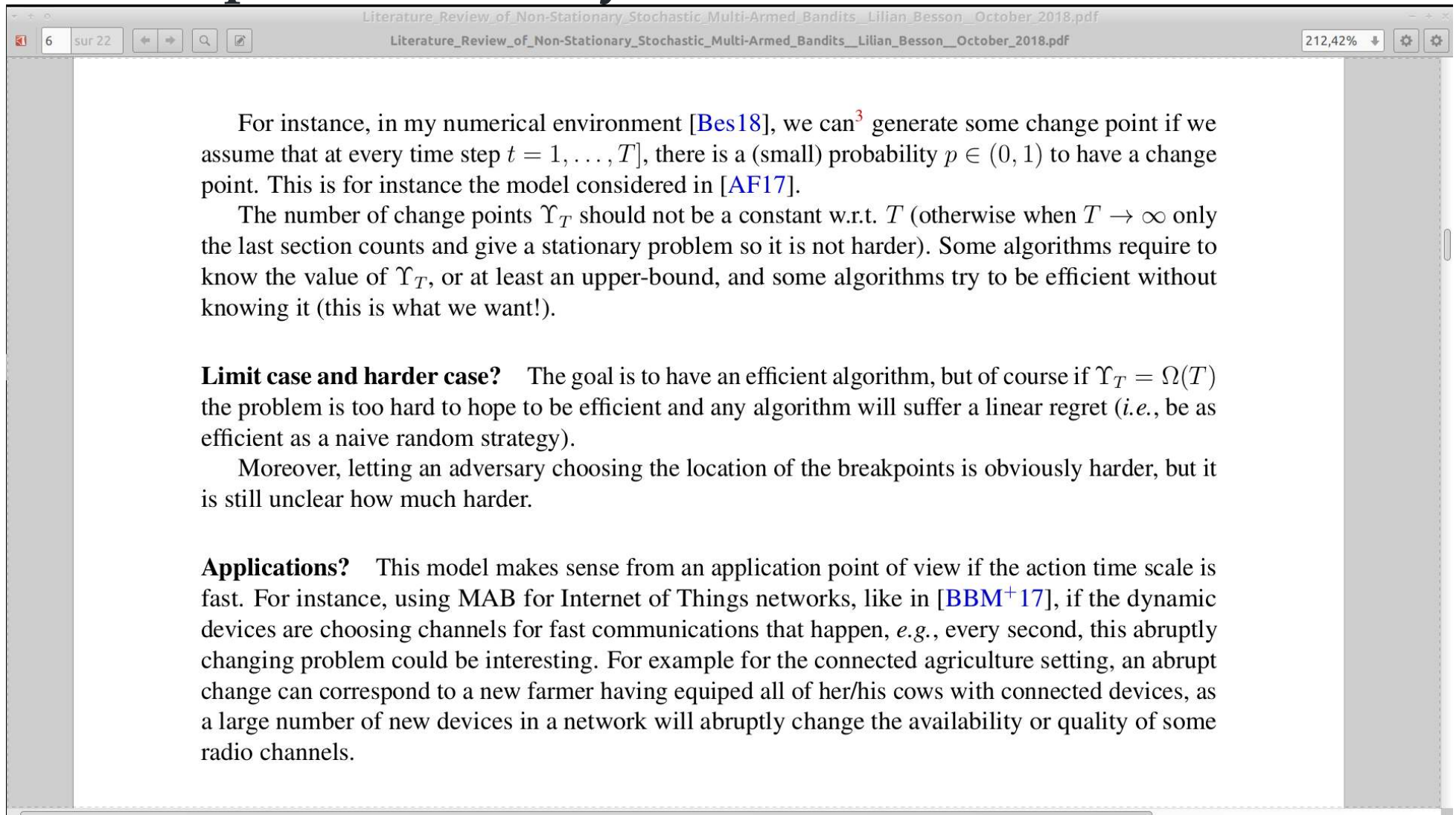
- Use *LaTeX*
- Use *BibTeX* (or *BibLaTeX*)

Example (LaTeX `.tex` file and BibTeX `.bib` file):

```
\bibliographystyle{ieeetr}    % or alpha, or other style  
\bibliography{myBibFile}     % at the end of the LaTeX file
```

```
@unpublished{SMPyBanditsHAL,  
  title = {{SMPyBandits: an Experimental Framework  
for Single and Multi-Players Multi-Arms Bandits Algorithms  
author = {Besson, Lilian},  
url = {https://hal.inria.fr/hal-01840022},  
note = {Presentation paper, at hal.inria.fr/hal-01840022},  
year = {2018},  
}
```


Example: In the body of the article



Example: In the reference list



Lazy way to organize your references

- Keep a bibtex file for each research project or paper,
- Fill it slowly and painfully everytime you think of a new reference
- Struggle a lot
- \implies avoid this lazy solution 

Lilian : I'm ashamed but I'm still at this level...

Smart way to organize your references

Use a dedicated software such as

- [Zotero](#) \implies ask me
- [JabRef](#) \implies ask Hussein
- Others (see [full comparison by Munich University](#))

Why selecting this two ones

- Used by the team
- Cross-platform (Windows, Mac, Linux)
- Integration with text editors
- Open source \implies free

But what is this ?

Goal

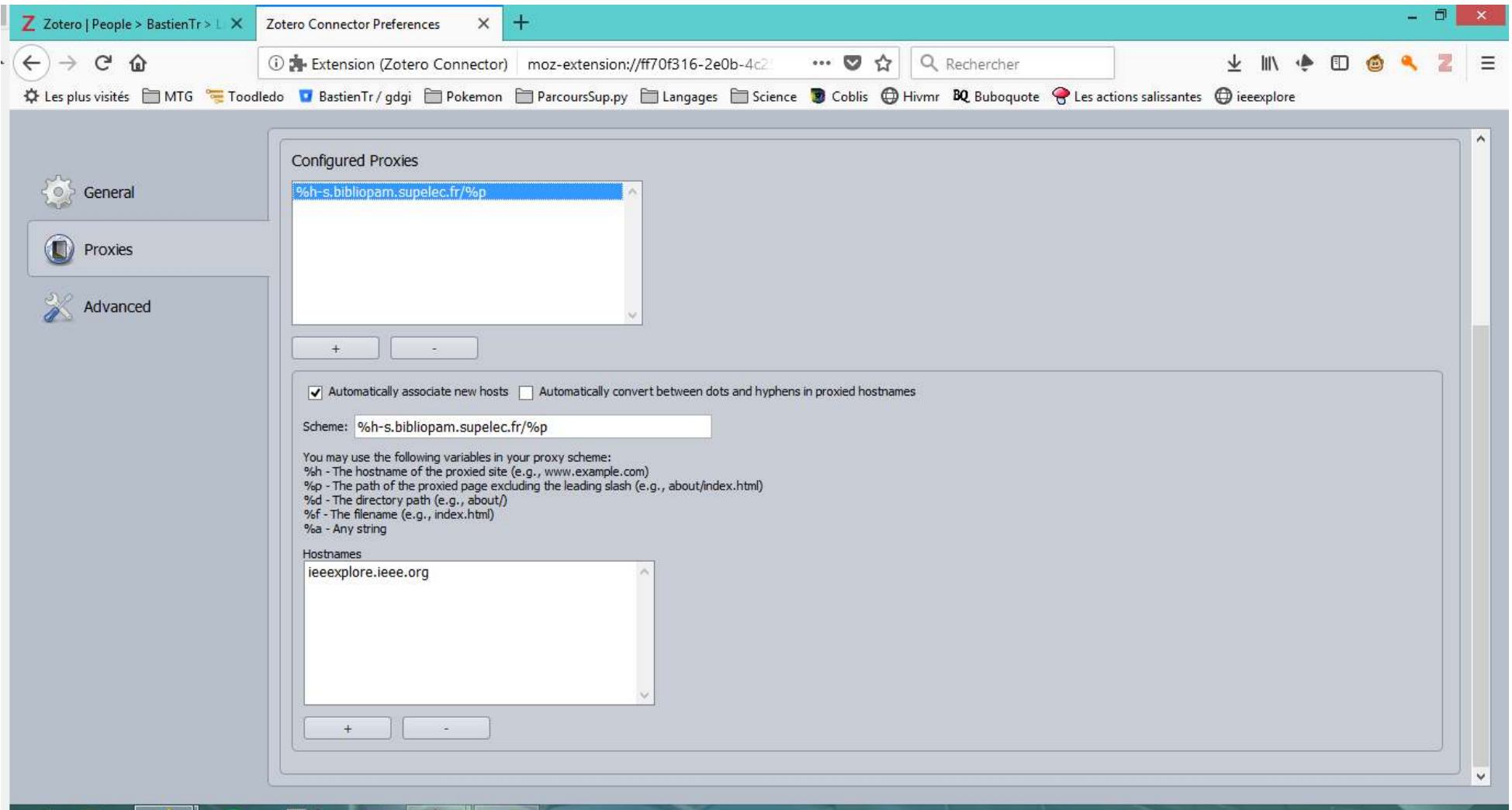
- To help you along
 - searching,
 - classifying,
 - inserting references in your papers.

Let's go for a quick walkthrough 

Step 1: Download, install and setup

- Download and install from website ([Zotero](#), [JabRef](#), etc).
- Download and install browser add-on.
 - Zotero: Firefox, Chrome & Safari
 - JabRef: Firefox only
- Setup synchronization.
 - Backup your bibliography
 - Share your bibliography
- Setup CentraleSupelec proxy if you want to access IEEEExplore with connector.

Setup proxy to access IEEEExplore



Step 2: Develop your bibliography

On both Zotero & JabRef

- Import files from your computer
- Save pages from your web browser
 - Papers
 - Web pages
 - Wikipedia...

On JabRef

- Search for papers on IEEExplore, arXiv, Google Scholar...

Step 3: Classify your bibliography

On both Zotero & JabRef

- Classify into collections to sort documents by topics.
- Automatic fetch of meta-data.
- Search based on author, date, conferences...
- Add notes and comments.

On Zotero

- Add markers and use them to find articles.
- Construct a chronology.

Zotero desktop version

The screenshot displays the Zotero desktop application. The main window is titled 'Zotero' and features a menu bar with 'Fichier', 'Édition', 'Outils', and 'Aide'. Below the menu bar is a toolbar with various icons. The left sidebar shows a tree view of the user's library, including folders like 'Ma bibliothèque', 'Architecture', 'Infos générales', 'MIMO detector', 'Mes publications', 'Doublons', 'Non classés', and 'Corbeille'. A search bar is located at the bottom of the sidebar.

The central pane displays a list of research papers with columns for 'Titre', 'Créateur', and 'Année'. The selected paper is 'Design and Implementation of Flexible Dual-Mode Soft-Output MIMO Detector With Channel Preprocessing' by Yan et al., published in 2015.

Titre	Créateur	Année
LTE MIMO Multiple Input Multiple Output Tutorial Radio-Electronics.com		
Efficient and Flexible VLSI Architecture for Soft-Output Massive MIMO Detector	Wei et al.	2018
VLSI design of large-scale soft-output MIMO detection using conjugate gradients	Yin et al.	2015
Design and Implementation of Flexible Dual-Mode Soft-Output MIMO Detector With Channel Preprocessing	Yan et al.	2015
VLSI implementation of high-throughput, low-energy, configurable MIMO detector	Chuang et al.	2015
Large-Scale MIMO Detection for 3GPP LTE: Algorithms and FPGA Implementations	Wu et al.	2014
Quasi-maximum-likelihood detector based on geometrical diversification greedy intensification	Nafkha et al.	2009
Globally Asynchronous, Locally Synchronous Circuits: Overview and Outlook	Krstic et al.	2007
Globally Asynchronous Locally Synchronous FPGA Architectures	Royal et Cheung	2003
Micropipelines	Sutherland	1989

The right pane shows the details of the selected paper, including the 'Type de document' (Article de revue), the full title, and a list of authors: Yan, Z., He, G., Ren, Y., He, W., Jiang, J., and Mao, Z. Below the authors is a 'Résumé' (Abstract) section containing the following text:

This paper proposes a flexible dual-mode soft-output multiple-input multiple-output (MIMO) detector to support open-loop and closed-loop in Chinese enhanced ultra high throughput (E-UHT) wireless local area network (LAN) standard. The proposed detector uses minimum mean square error (MMSE) sorted QR decomposition (MMSE-SQRD) to produce channel preprocessing result, which is realized by a modified systolic array architecture with concurrent sorting. Moreover, the adopted square-root MMSE algorithm for closed-loop reuses MMSE-SQRD preprocessing to largely save hardware overhead. In addition, an optimized K-Best detection algorithm is proposed for open-loop, which increases throughput by odd-even parallel

Zotero web version

The screenshot shows the Zotero web interface. The browser address bar displays <https://www.zotero.org/bastientr/items>. The page header includes the Zotero logo, a welcome message for BastienTr, and navigation links for Settings, Inbox, Download, and Log Out. A blue 'Upgrade Storage' button is also visible. The main navigation bar includes 'Home', 'My Library', 'Groups', 'People', 'Documentation', 'Forums', and 'Get Involved'. The 'Groups' menu item is circled in red. Below the navigation bar, the breadcrumb trail reads 'Home > People > BastienTr > Library'. The left sidebar shows a 'Library' section with sub-items: Architecture, Infos générales, MIMO detector, and Trash. Below this is a 'Tags' section with a 'Filter Tags' input and a grid of tag buttons including ASIC Usage, BER performa..., BLER perform..., CGLS, Conjugate Gr..., Event-driven, Example, FIFO, FPGA Usage, GALS, GDGI, Hard-Output, Interface, Iterative, K-Best, LTE, Massive MIMO, Micropipelin..., MIMO, MMSE-SQRD, Muller C-ele..., and Neumann Seri... The main content area displays a table of items with columns for Title, Creator, and Date Modified. The table contains 10 entries, each with a checkbox and a document icon. The first entry is 'Design and Implementation of Flexible Dual-Mode Soft-Output ...' by Yan et al., dated 08/10/2018 18:02. The last entry is 'VLSI implementation of high-throughput, low-energy, configur...' by Chuang et al., dated 08/10/2018 15:13. At the bottom of the table, it indicates '1 to 10 of 10' items.

	Title	Creator	Date Modified
<input type="checkbox"/>	Design and Implementation of Flexible Dual-Mode Soft-Output ...	Yan et al.	08/10/2018 18:02
<input type="checkbox"/>	Efficient and Flexible VLSI Architecture for Soft-Output Mas...	Wei et al.	08/10/2018 14:10
<input type="checkbox"/>	Globally Asynchronous Locally Synchronous FPGA Architectures	Royal and Cheung	14/09/2018 14:46
<input type="checkbox"/>	Globally Asynchronous, Locally Synchronous Circuits: Overvie...	Krstic et al.	14/09/2018 15:15
<input type="checkbox"/>	Large-Scale MIMO Detection for 3GPP LTE: Algorithms and FPGA...	Wu et al.	08/10/2018 14:10
<input type="checkbox"/>	LTE MIMO Multiple Input Multiple Output Tutorial Radio-E...		08/10/2018 18:01
<input type="checkbox"/>	Micropipelines	Sutherland	02/10/2018 14:23
<input type="checkbox"/>	Quasi-maximum-likelihood detector based on geometrical diver...	Nafkha et al.	08/10/2018 14:10
<input type="checkbox"/>	VLSI design of large-scale soft-output MIMO detection using ...	Yin et al.	08/10/2018 15:13
<input type="checkbox"/>	VLSI implementation of high-throughput, low-energy, configur...	Chuang et al.	08/10/2018 15:13

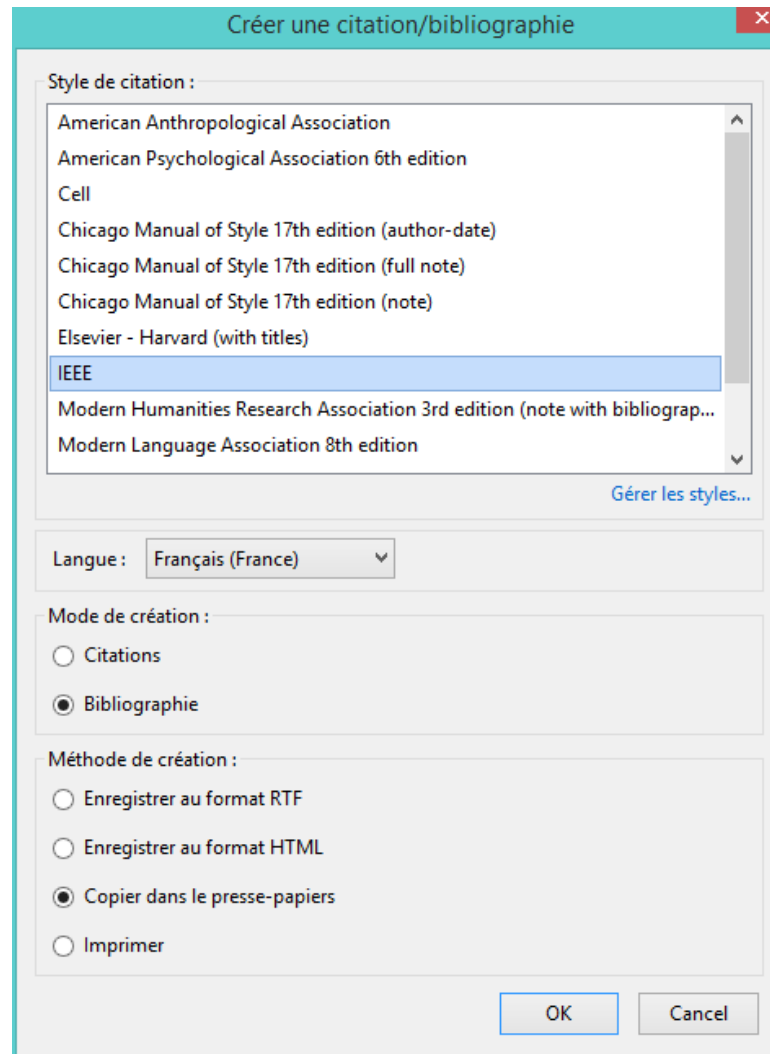
Step 4: Add references to your documents

- Application plugins to quick reference insertions
 - JabRef: Emacs, Lyk, TeXstudio, Vim...
 - Zotero: LibreOffice, Word...
- Export a list of references as
 - *BibTeX* and other *LaTeX* formats
 - IEEE style and other ordinary styles for copy & paste

Export as *BibTeX*

```
@incollection{goos_globally_2003,  
  address = {Berlin, Heidelberg},  
  title = {Globally {Asynchronous} {Locally} {Synchronous}},  
  volume = {2778},  
  isbn = {978-3-540-40822-2 978-3-540-45234-8},  
  url = {http://link.springer.com/10.1007/978-3-540-45234-8_35},  
  abstract = {Globally Asynchronous Locally Synchronous (GALS) architectures are becoming increasingly popular in the design of high-speed digital systems. This book provides a comprehensive overview of the state-of-the-art in GALS design, covering both theoretical and practical aspects. The book is divided into two main parts: the first part deals with the design of GALS systems, and the second part deals with the implementation of GALS systems. The book is written for researchers and practitioners in the field of digital design and computer architecture.  
  language = {en},  
  urldate = {2018-09-12},  
  booktitle = {Field {Programmable} {Logic} and {Application-Specific} {Integrated} {Circuits}},  
  publisher = {Springer Berlin Heidelberg},  
  author = {Royal, Andrew and Cheung, Peter Y. K.},  
  editor = {Goos, Gerhard and Hartmanis, Juris and van Leeuwen, Jack},  
  year = {2003},  
  doi = {10.1007/978-3-540-45234-8_35},  
  keywords = {Micropipeline, Muller C-element},  
  pages = {355--364},  
  file = {Royal et Cheung - 2003 - Globally Asynchronous  
}
```

Export as IEEE style for copy & paste




Output

[1] Q. Wei, L. Liu, G. Peng, S. Yin, et S. Wei, « Efficient **and** Flexible VLSI Architecture **for Soft**-Output Massive MIMO Detector », **in** Proceedings **of** Information Science **and** Cloud Computing – PoS(ISCC 2017), Guangzhou, China, 2018, p. 055.

[2] B. Yin, M. Wu, J. R. Cavallaro, et C. Studer, « VLSI design **of** large-scale **soft**-output MIMO detection **using** conjugate gradients », **in** 2015 IEEE International Symposium **on** Circuits **and** Systems (ISCAS), Lisbon, Portugal, 2015, p. 1498-1501.

Tips & tricks

- Save all papers that you read.
- Save also usefull web pages, newspaper articles...
 -  Dont forget to add few information about the content
- A few minutes to lose now but hours to save later.

Conclusion (1/3)

Sum-up

- We showed you techniques to look for new references, and to find and download the PDF (*legally*)
- We showed you some softwares to manage your bibliography

Pointers

- ↪ scholar.google.com
- ↪ archives-ouvertes.fr & arxiv.org
- ↪ duckduckgo.com ❤️
- ↪ zotero.org and jabref.org

Conclusion (2/3)

Next GouTP @ **SCEE**

- Any request or suggestion ?

We need participants!

👉 *By you?* Any idea is welcome! 😊

Contact us if you want to do a GouTP !

Conclusion (3/3)

Thanks for joining 🙌 !

Your mission, if you accept it... ✨

1. *Padawan level* : be smart about how you look for new references.
2. *Jedi level* : organize **and backup** your references and BibTeX files!
3. *Master level* : publish so many papers that your name will be in the BibTeX files of half the planet (*yes we can!*).