

# Cite U Like

An on-line tool to store, organize and share papers

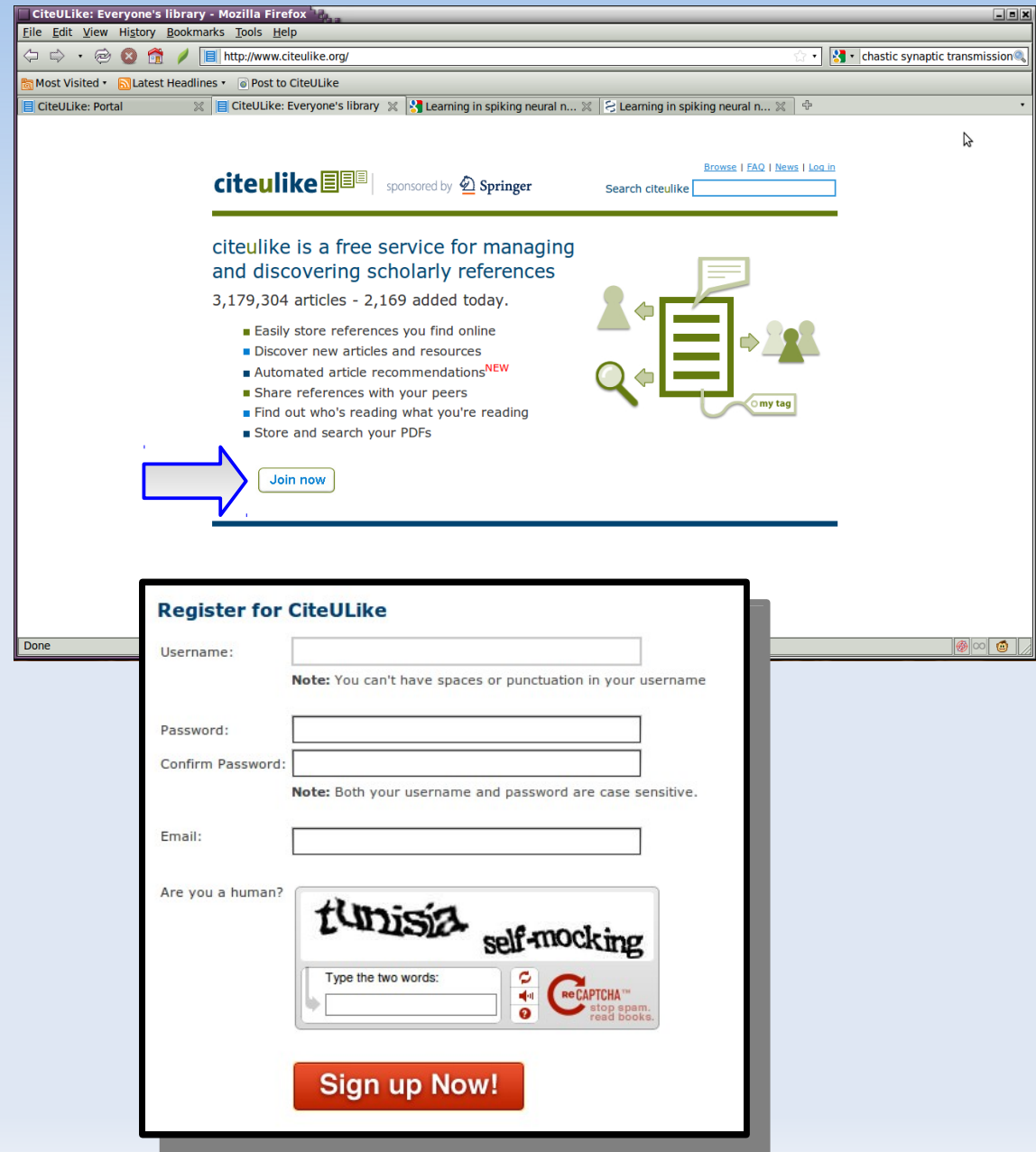
And some automation to help keeping track of what you read

<http://www.citeulike.org>

# A brief introduction to Cite U Like

➤ On-line tool that needs registration with some information:

- Username - a personal nickname
- Password - to access your stored article
- E-Mail - your personal e-mail



The screenshot shows the CiteULike website in a Mozilla Firefox browser window. The page title is "CiteULike: Everyone's library". The main content area features the CiteULike logo, a search bar, and a list of features. A blue arrow points to the "Join now" button. Below the main content, a registration form titled "Register for CiteULike" is displayed, containing fields for Username, Password, Confirm Password, and Email, along with a CAPTCHA and a "Sign up Now!" button.

CiteULike: Everyone's library - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.citeulike.org/

Most Visited Latest Headlines Post to CiteULike

CiteULike: Portal CiteULike: Everyone's library Learning in spiking neural n... Learning in spiking neural n...

**citeulike** | sponsored by Springer

Search citeulike

citeulike is a free service for managing and discovering scholarly references

3,179,304 articles - 2,169 added today.

- Easily store references you find online
- Discover new articles and resources
- Automated article recommendations<sup>NEW</sup>
- Share references with your peers
- Find out who's reading what you're reading
- Store and search your PDFs

Join now

**Register for CiteULike**

Username:

**Note:** You can't have spaces or punctuation in your username

Password:

Confirm Password:

**Note:** Both your username and password are case sensitive.

Email:

Are you a human?

tunisia self-mocking

Type the two words:

reCAPTCHA™ stop spam. read books.

**Sign up Now!**

# Cite U Like - Main page

## An example - my main page

The screenshot shows the CiteULike main page in a Mozilla Firefox browser window. The page layout includes a header with the CiteULike logo and navigation links. The main content area is divided into several sections: Recommendations, Library, Activity, and Profile. The Recommendations section displays a list of articles, including 'Reinforcement learning I: Introduction', 'Efficient modelling of spiking neural networks on a scalable chip multiprocessor', 'Developmental Robotics: Manifesto and Application', 'Adaptive models in neural networks', and 'Spontaneous and evoked synaptic rewiring in the neonatal neocortex'. The Library section shows a list of articles with links to 'Most recent entry', 'Unread', and 'Search'. The Activity section displays the 'Most recent entry in each of your groups and connections' and includes sections for 'Connections' and 'Groups'. The Profile section on the right shows the user's profile information, including Username, Joined date, Email, Name, Job title, Affiliation, Web page, What I do, and Interests.

**Annotations:**

- Recommendations**: A blue box highlighting the Recommendations section.
- Personal information**: A blue box highlighting the Profile section.
- Articles stored**: A blue box highlighting the Library section.
- Social networking**: A blue box highlighting the Activity section.

**Page Content:**

**Header:** CiteULike: Portal - Mozilla Firefox  
File Edit View History Bookmarks Tools Help  
http://www.citeulike.org/

**Navigation:** Most Visited Getting Started Latest Headlines  
CiteULike: Portal New CiteULike password - s... CiteULike: Lost password d... CiteULike: Portal

**Left Sidebar:**  
citeulike  
CiteULike MyCiteULike  
ANNUAL REVIEWS  
INSIGHTFUL RESEARCH STARTS HERE  
to all SAGE Journals until October 31, 2009  
Register  
SAGE journals online

**Recommendations:**  
There aren't any recommendations for you yet. These are only generated once you have a 20 or more articles in your library. See the [recommendations](#) page for more details.

**Library:**  
[Most recent entry] [Unread] [Search]  
Reinforcement learning I: Introduction  
Efficient modelling of spiking neural networks on a scalable chip multiprocessor  
Developmental Robotics: Manifesto and Application  
Adaptive models in neural networks  
Spontaneous and evoked synaptic rewiring in the neonatal neocortex  
[My Library]

**Activity:**  
Most recent entry in each of your groups and connections  
**Connections**  
You don't have any connections. You can request a connection to another user by clicking **Connect** on another user's pages.  
**Groups**  
You are not a member of any groups. Why not [search](#) for a group to join? Or perhaps start your own one. Within a group where you can share articles with researchers in a field you're interested in. You can also discuss topics through group forums and blogs. Groups can be either public or private.

**Profile:**  
Profile  
Username: sergiodavies  
Joined: 2009-10-12  
Email: sergio.davies@gmail.com  
Name: Sergio Davies  
Job title: PhD Student  
Affiliation: [Not specified]  
Web page: [Not specified]  
What I do: I'm a PhD student at the University of Manchester, in Computer Science and I'm doing some research on neural network plasticity and synaptic ...  
Interests: spiking neural network, neural network plasticity, synaptic rewiring, neuronal death and network recovery  
[View] [Edit]  
Blog  
Recent blog posts  
Science papers that interest you  
The most recent addition to CiteULike has been article recommendations based on

# Cite U Like - Adding an Article (1)

Learning in spiking neural networks by reinforcement of stochastic synaptic transmission. [Neuron. 2003] - PubMed result - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.ncbi.nlm.nih.gov/pubmed/14687542

Most Visited Latest Headlines Post to CiteULike

CiteULike: Portal CiteULike: My library 5 artic... Learning in spiking neural n... Learning in spiking neural n...

NCBI Resources How To My NCBI Sign In

PubMed.gov  
U.S. National Library of Medicine  
National Institutes of Health

Search: PubMed Advanced search Help

Search Clear

Display Settings: Abstract Send to:

Performing your original search, *Learning in spiking neural networks by reinforcement of stochastic synaptic transmission*, in PubMed will retrieve [2 records](#).

Neuron. 2003 Dec 18;40(6):1063-73.

**Learning in spiking neural networks by reinforcement of stochastic synaptic transmission.**

Seung HS.  
Howard Hughes Medical Institute and Brain and Cognitive Sciences Department, Massachusetts Institute of Technology, Cambridge, MA 02139, USA. seung@mit.edu

It is well-known that chemical synaptic transmission is an unreliable process, but the function of such unreliability remains unclear. Here I consider the hypothesis that the randomness of synaptic transmission is harnessed by the brain for learning, in analogy to the way that genetic mutation is utilized by Darwinian evolution. This is possible if synapses are "hedonistic," responding to a global reward signal by increasing their probabilities of vesicle release or failure, depending on which action immediately preceded reward. Hedonistic synapses learn by computing a stochastic approximation to the gradient of the average reward. They are compatible with synaptic dynamics such as short-term facilitation and depression and with the intricacies of dendritic integration and action potential generation. A network of hedonistic synapses can be trained to perform a desired computation by administering reward appropriately, as illustrated here through numerical simulations of integrate-and-fire model neurons.

PMID: 14687542 [PubMed - indexed for MEDLINE]

+ MeSH Terms

+ LinkOut - more resources

Cell Press

Related articles

- ▶ Learning in neural networks by reinforcement of in [Phys Rev E Stat Nonlin Soft Matter Phys. 2004]
- ▶ Dynamic stochastic synapses as computational units. [Neural Comput. 1999]
- ▶ Reinforcement learning through modulation of spike-timing-dependent syn [Neural Comput. 2007]
- ▶ **Review** A spiking neural network architecture for nonlinear function approximation [Neural Netw. 2001]
- ▶ **Review** A review of the integrate-and-fire neuron model: I. Homogeneous synapt [Biol Cybern. 2006]

» See reviews... | » See all...

Cited by 8 PubMed Central articles

- ▶ Gain in sensitivity and loss in temporal contrast of STDP by dopamine [Proc Natl Acad Sci U S A. 2009]
- ▶ Copying and evolution of neuronal topology. [PLoS One. 2008]
- ▶ Emergence of functional hierarchy in a multiple timescale neural network [PLoS Comput Biol. 2008]

» See all...

All links from this record

- ▶ Related Articles
- ▶ Cited in PMC

Done

# Cite U Like - Adding an Article (2)

## Information "automagically" added to your post

CiteULike: New article: where would you like to file it? - Mozilla Firefox

http://www.citeulike.org/posturl?username=sergiodavies&url=http%3a%2f%2fwww.ncbi.nlm.nih.gov%2fpubmed%2f14687542&title=Learning+in+spiking+neural+networks+by+reinforc

**citeulike** | sponsored by **Springer** | Search | Logged in as [sergiodavies](#) | Log Out

CiteULike | MyCiteULike

**ANNUAL REVIEWS**  
INSIGHTFUL RESEARCH STARTS HERE

**AuthorMapper**  
A free analytic tool from Springer

**New article: where would you like to file it?**  
Let us know where, and how, you want this filed.

**Title:** Learning in spiking neural networks by reinforcement of stochastic synaptic transmission.

**Abstract:** It is well-known that chemical synaptic transmission is an unreliable process, but the function of such unreliability remains unclear. Here I consider the hypothesis that the random...

**Authors:** Seung HS

**Tags:**

**Note:** This is just a list of keywords which you'd like to associate with the article. Prefix private tags with "\*". You can also mark articles for the attention of one of your [connections](#) as "for:username"

▼ 14 tags in your library  
adaptive\_models artificial\_neural\_networks interaction\_learning\_models mathematical\_model neural\_network\_simulation neural\_simulation neuron\_plasticity pyramidal\_neuron reinforcement\_learning robot\_behaviour synaptic\_connection synaptic\_rewiring trial\_and\_error

**Suggested tags**  
stochastic\_approximation genetic\_mutation numerical\_simulations model\_neurons darwinian\_evolution synaptic\_transmission synapses intricacies neural\_networks randomness facilitation probabilities gradient\_reinforcement analogy hypothesis depression brain\_failure

### The automatic information importer works with these websites:

ACL Anthology, AIP Scitation, Amazon, American Chem. Soc. Publications, American Geophysical Union, American Meteorological Society Journals, American Physical Society, Annual Reviews, Anthrosource, arXiv.org e-Print archive, Association for Computing Machinery (ACM) Portal, BioMed Central, BiomedExperts, Blackwell Synergy, BMJ, Cambridge University Press, Cases Network, Cell, Chicago Journals, CiteSeer, CiteSeerX Beta, crossref-doi, Cryptology ePrint Archive, Daum, DBLP, EBI CiteXplore, EdITLib, Education Resources Information Center, EGU Journals, Elsevier, F1000, First Monday, HighWire, IEEE Digital Library, IEEE Explore, informaworld, Ingenta, IngentaConnect, IoP Electronic Journals, IOS Press, IUCr, IWA Publishing Online, Journal of Machine Learning Research, Journal of Visualized Experiment, JSTAGE, JStatSoft, JSTOR, LibraryThing, Mary Ann Liebert, MathSciNet, MetaPress, NASA Astrophysics Data System, National Bureau of Economic Research, Nature, novo|seek, Open Repository, Optical Society of America, Pion, plos, PLoS Biology, Project MUSE, PsyCONTENT, PubMed, PubMed Central, Royal Society, Royal Society of Chemistry, Science, ScienceDirect, Scopus, Social Science Research Network, SpringerLink, Usenix, Wiley InterScience, WorldCat, WormBase



## Information to add manually

# Cite U Like - Main page (with a new article)

CiteULike: My library 6 articles - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.citeulike.org/user/sergiodavies

Most Visited Latest Headlines Post to CiteULike

CiteULike: Portal CiteULike: My library 6 artic... Learning in spiking neural n... Learning in spiking neural n...

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Search Logged in as [sergiodavies](#) Log Out

CiteULike MyCiteULike

**My library 6 articles** Watch Export

[Hide details](#)

- ☐ [Learning in spiking neural networks by reinforcement of stochastic synaptic transmission.](#)  
*Neuron*, Vol. 40, No. 6. (18 December 2003), pp. 1063-1073.  
by [H. Sebastian Seung](#)  
posted to [no-tag](#) by [sergiodavies](#) on 2009-11-01 01:51:31 as ★★ [along with 4 people and 1 group](#)
- ☐ [Reinforcement learning I: Introduction](#)  
by [Richard S. Sutton, Andrew G. Barto](#)  
posted to [trial and error](#) [reinforcement learning](#) [interaction](#) [artificial neural networks](#) by [sergiodavies](#) on 2009-10-13 19:20:31 as ★★
- ☐ [Efficient modelling of spiking neural networks on a scalable chip multiprocessor](#)  
*Neural Networks, 2008. IJCNN 2008. (IEEE World Congress on Computational Intelligence). IEEE International Joint Conference on* (26 September 2008), pp. 2812-2819.  
by [Xin Jin, S. B. Furber, J. V. Woods](#)  
posted to [neural simulation](#) [neural network simulation](#) [mathematical model](#) [artificial neural networks](#) by [sergiodavies](#) on 2009-10-13 18:05:23 as ★★
- ☐ [Developmental Robotics: Manifesto and Application](#)  
*Philosophical Transactions: Mathematical, Physical and Engineering Sciences*, Vol. 361, No. 1811. (2003), pp. 2187-2206.  
by [Terry Elliott, Nigel R. Shadbolt](#)  
posted to [robot behaviour](#) [mathematical model](#) [learning models](#) [artificial neural networks](#) [adaptive models](#) by [sergiodavies](#) on 2009-10-13 17:34:18 as ★★ [along with 1 person](#)
- ☐ [Adaptive models in neural networks](#)  
*New Trends in Neural Computation*, Vol. 686 (1993), pp. 193-197.  
by [Panos A. Liqomenides](#)  
posted to [learning models](#) [artificial neural networks](#) [adaptive models](#) by [sergiodavies](#) on 2009-10-12 17:16:59 as ★★
- ☐ [Spontaneous and evoked synaptic rewiring in the neonatal neocortex](#)  
*Proceedings of the National Academy of Sciences*, Vol. 103, No. 35. (29 August 2006), pp. 13214-13219.  
by [Jean-Vincent Le Be, Henry Markram](#)  
posted to [synaptic rewiring](#) [synaptic connection](#) [pyramidal neuron](#) [neuron plasticity](#) by [sergiodavies](#) on 2009-10-12 16:43:18 as ★★

Note: You may cite this page as: <http://www.citeulike.org/user/sergiodavies>

**sergiodavies's tags**  
All tags in sergiodavies's library

Filter:

[\[Display as Cloud\]](#)

<a href="#">artificial neural network</a>	4
<a href="#">adaptive models</a>	2
<a href="#">learning models</a>	2
<a href="#">mathematical model</a>	2
<a href="#">interaction</a>	1
<a href="#">neural network simulation</a>	1
<a href="#">neural simulation</a>	1
<a href="#">neuron plasticity</a>	1
<a href="#">pyramidal neuron</a>	1
<a href="#">reinforcement learning</a>	1
<a href="#">robot behaviour</a>	1
<a href="#">synaptic connection</a>	1
<a href="#">synaptic rewiring</a>	1
<a href="#">trial and error</a>	1

Done

# Exporting bibliography

It is possible to export the articles in a variety of formats

The screenshot shows the CiteULike website interface in a Mozilla Firefox browser window. The address bar displays <http://www.citeulike.org/user/sergiodavies#>. The page title is "CiteULike: My library 6 articles".

An "Export" dialog box is open, showing the following options:

- RIS
- BibTeX
- PDF
- RTF
- Formatted Text
- Delicious

The background page shows "My library 6 articles" with a list of articles. The first article is "Learning in spiking neural networks" by H. Sebastian Seung, posted on 2009-11-01. Other articles include "Reinforcement learning I: Introduction" by Richard S. Sutton and Andrew G. Barto, "Efficient modelling of spiking neural networks on a scalable chip multiprocessor" by Xin Jin, S. B. Furber, and J. V. Woods, "Developmental Robotics: Manifesto and Application" by Terry Elliott and Nigel R. Shadbolt, "Adaptive models in neural networks" by Panos A. Liqomenides, and "Spontaneous and evoked synaptic rewiring in the neonatal neocortex" by Jean-Vincent Le Be and Henry Markram.

On the right side, there is a section titled "sergiodavies's tags" with a list of tags and their counts:

Tag	Count
artificial neural netwo	4
adaptive models	2
learning models	2
mathematical model	2
interaction	1
neural network simul	1
neural simulation	1
neuron plasticity	1
pyramidal neuron	1
reinforcement learning	1
robot behaviour	1
synaptic connection	1
synaptic rewiring	1
trial and error	1

The bottom of the browser window shows the URL <http://www.citeulike.org/endnote/user/sergiodavies>.



# New connection with other people and groups

Looking around, you will notice people in your same field collecting articles with similar topics to yours.

The screenshot displays the CiteULike: Portal interface. The browser window has multiple tabs, including 'CiteULike: Portal' and 'Learning in spiking neural n...'. The main content area is divided into several sections:

- Article Recommendations:** A list of articles with red document icons and blue links, including 'Reinforcement learning I: Introduction', 'Efficient modelling of spiking neural networks on a scalable chip multiprocessor', 'Developmental Robotics: Manifesto and Application', and 'Adaptive models in neural networks'. A '[My Library]' link is at the bottom right of this section.
- Activity Section:** A large blue-bordered box containing:
  - Connections:** A message stating 'You don't have any connections. You can request a connection to another user by clicking **Connect** on another user's pages.'
  - Groups:** A message stating 'You are not a member of any groups. Why not [search](#) for a group to join? Or perhaps start your own one. Within a group where you can share articles with researchers in a field you're interested in. You can also discuss topics through group forums and blogs. Groups can be either public or private.'
  - Watchlist:** A message stating 'You haven't set up any watchlists yet. Watchlist allow you to keep track of new interesting articles on the site. You can add things to your watchlist whenever you see a **watch** button on the site. You can learn more about watchlists [here](#).'
- CiteGeist:** A section titled 'Most frequently posted articles during the past week.' with two entries:
  - Posted 23 times: [How To Choose a Good Scientific Problem](#)
  - Posted 19 times: [How to write consistently boring scientific literature](#)

**User Profile (Right Sidebar):**

- Name:** Sergio Davies
- Job title:** PhD Student
- Affiliation:** [Not specified]
- Web page:** [Not specified]
- What I do:** I'm a PhD student at the University of Manchester, in Computer Science and I'm doing some research on neural network plasticity and synaptic ...
- Interests:** spiking neural network, neural network plasticity, synaptic rewiring, neuronal death and network recovery. Links for [View] and [Edit] are provided.

**Blog Section:**

- Recent blog posts:** [Science papers that interest you](#). The post text states: 'The most recent addition to CiteULike has been article recommendations, based on a user's historical preferences for certain scientific articles and research areas. However, article recommendation is not the only possible task that can be supported on CiteULike. (15 days ago)'. A [Blog] link is at the bottom.

**Forums Section:**

- Recent forums activity:** 2009-10-31
  - 09:40: [thegoose](#) posted a comment to forum thread [Complicated names are mangled on import, or on formatting](#)
  - 02:13: [dfkotz](#) added the forum thread [Complicated names are mangled on](#)

The bottom of the browser window shows a 'Done' status bar and standard navigation icons.