Wiki

for the NMR community

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Topics:

what is wiki

what works for wiki's

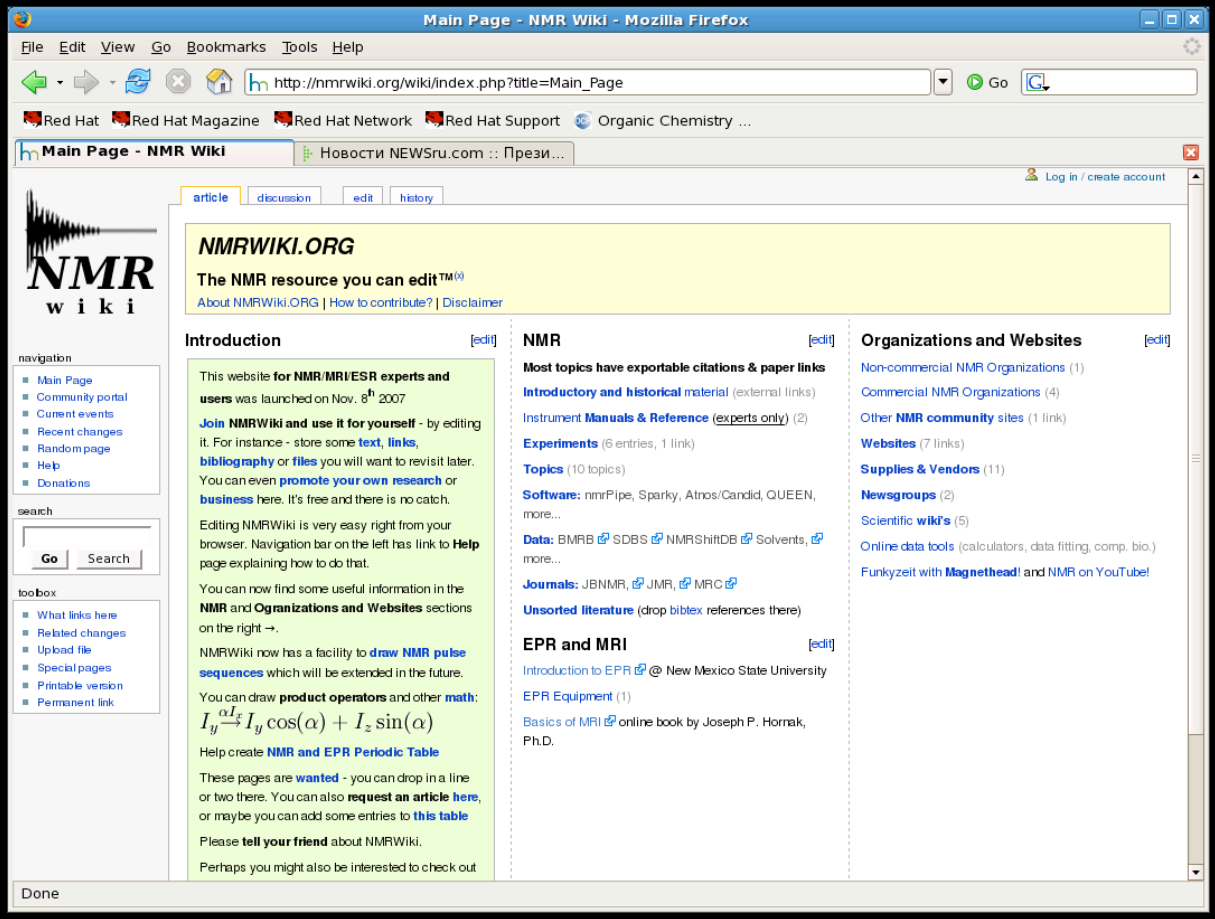
what doesn't work

some info about nmrwiki.org

wiki =

open, flexible collaborative record keeping system

NMRWIKI.ORG



150 articles about NMR in (hopefully) “plain English” in 4 months

NMRWiki uses same software as Wikipedia

What can go into NMR wiki.

- manuals
- lectures
- pulse sequences
- sample NMR data
- software
- scripts
- tips and tricks
- organized bibliography
- personal biographical information
- a.k.a. blogs
- web applets/tools

Why?

- organize bits of information for easier life
- improve sense of community
- improve awareness of what is and has been happening in the NMR/EPR/MRI world

Audience for NMR wiki.

NMR community ~10.000 people ***(?)***
most likely contributors
generally very computer literate people
-increases chance of active participation

Chemists ~ 0.5 million people
mostly consumers and perhaps
supporters

Why funny name?

Name comes from name of Hawaii airport bus wiki-wiki (“quick” in Hawaiian)

WikiWikiWeb was first developed in 14 years ago by Ward Cunningham

W. Cunningham: “Wiki is the simplest web database that could possibly work”

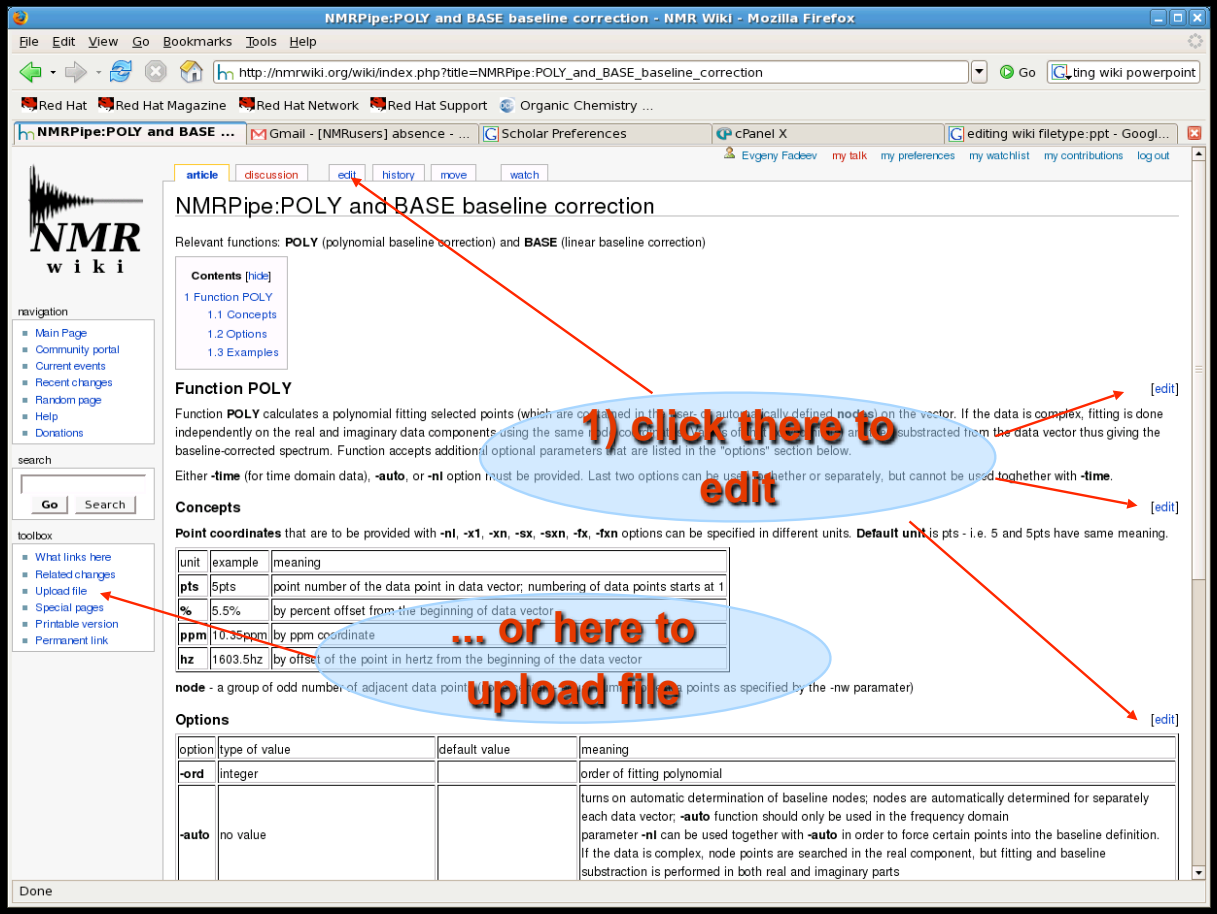
Wikipedia is the biggest wiki website. 7% internet users check it daily.

Editing wiki page is simple

1) find the page you want to edit
2) click on a link that says “edit”
3) type in your changes
4) click “save” button

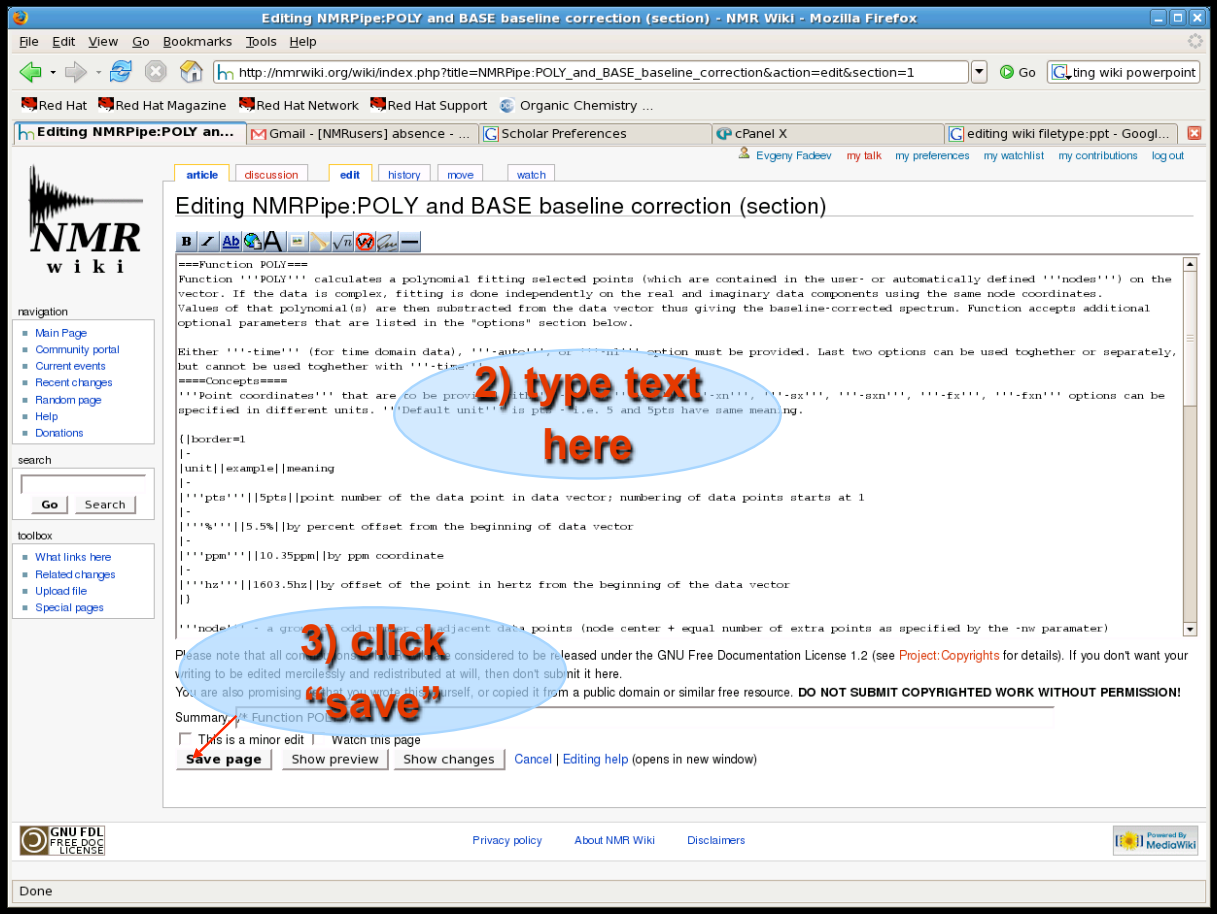
<30 s for a trivial update

Editing wiki page



NMRWiki uses same software as Wikipedia

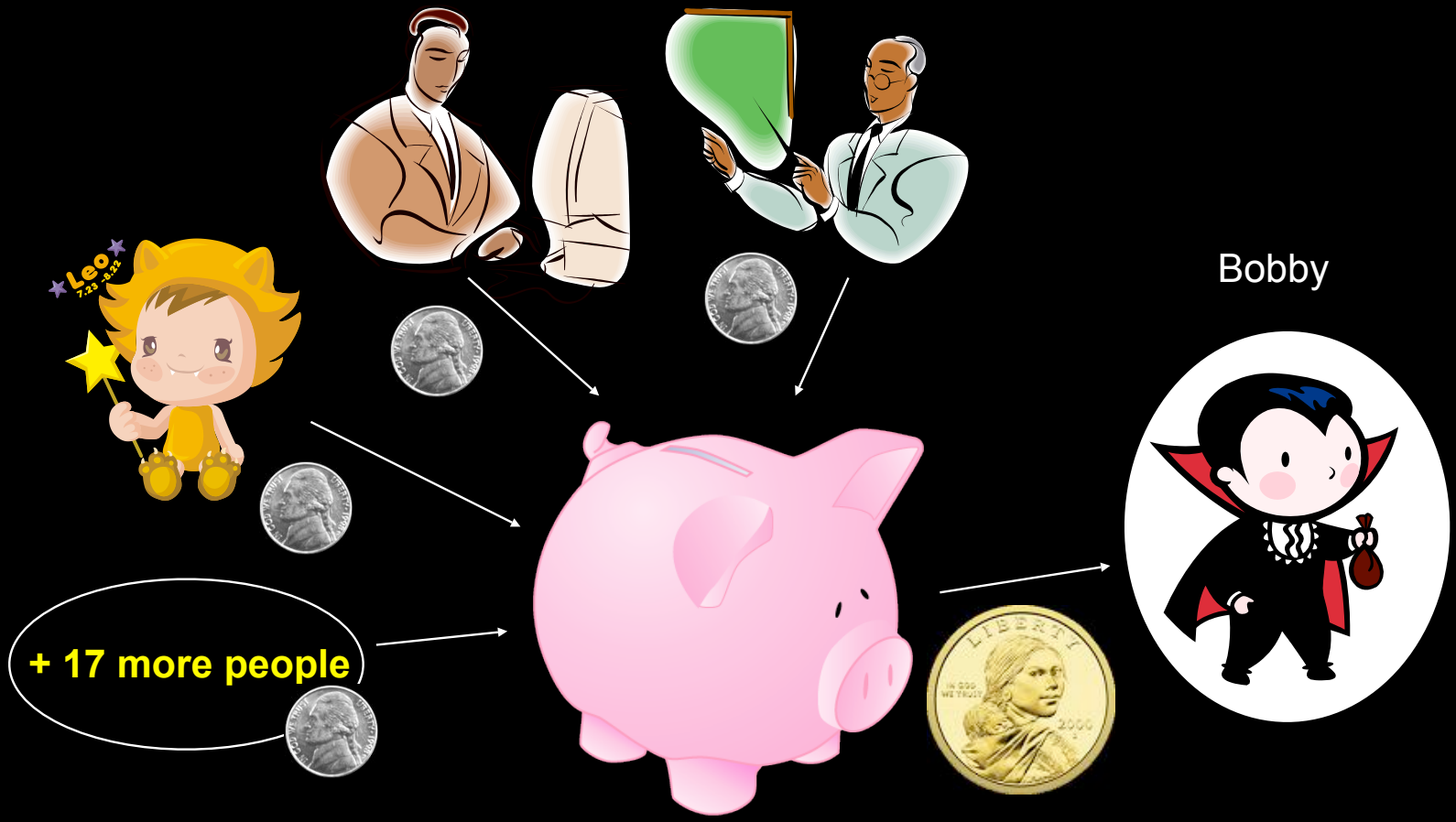
Editing wiki page



< 30 s for a trivial edit or file upload

free-format presentation achievable from text-only input & uploads

Why wiki's work?



Information banking system: you bring 5 cents today, take $1 tomorrow.
Copying information costs nearly nothing, the bank stays full.

Why wiki's work? "90-10-1 rule".

90% - readers
10% - occasional contributors
1% - active contributors

90-10-1 seems to be a "behavioral invariant"

1% is not a bad number
(this 1% is what makes wiki's outperform traditional websites)

wiki is accessible to non-computer nerds

How to make wiki work better?

Dedicated maintainer & first contributor required

For internet: short memorable domain name
(not important for intranet sites)

Maximize openness

Critical mass of useful information

“People-magnet” tools (applets etc.)

Take a look at www.wikipatterns.com

Remember that most contributors should be volunteers

How to make wiki work better?

Wiki is a behaviorial phenomenon

Good behavior is key to success

Explain how to contribute

Welcoming new users

Acknowledge contributions

Organize planned improvement events

“Wiki champion”

“Patron” - High profile proponent

“Gardener”

Use of real names

Use typo’s to entice people participate

Invite people to participate

Create personal profiles (like MySpace)

What does not work?

Blank appearance

Copyright infringement

Hired contributors

Being annoying

Barriers to participation

Claiming page ownership

Complicated site navigation

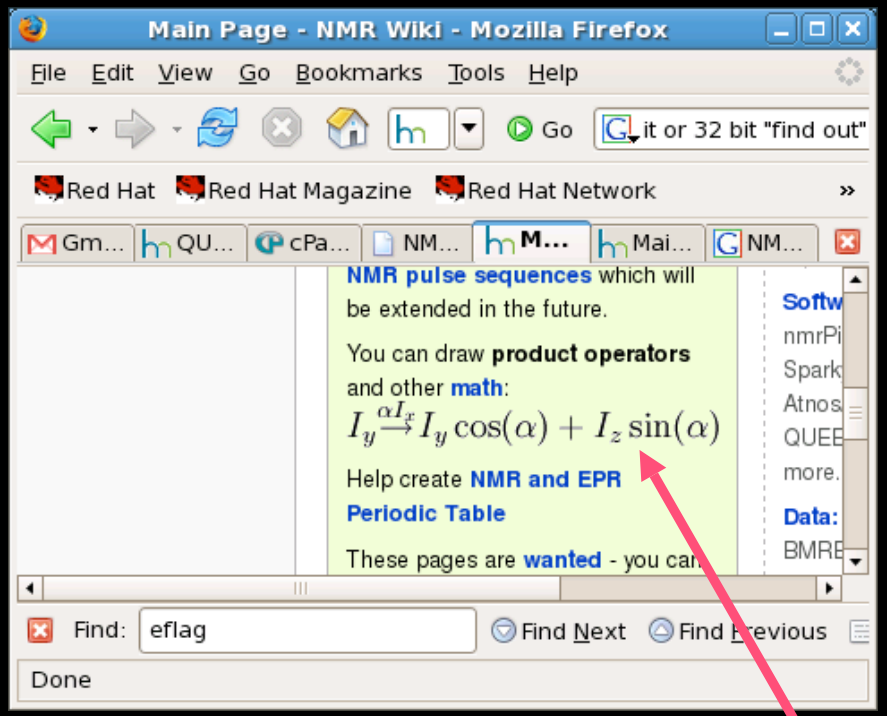
Extension mechanism: flexibility

<special_tag>some text input </special_tag>

some special
presentational result

Math equations: LaTeX

```
<math>I_y \stackrel{\alpha I_x}{\rightarrow} I_y \cos(\alpha) + I_z\sin(\alpha)</math>
```



$$I_y \stackrel{\alpha I_x}{\rightarrow} I_y \cos(\alpha) + I_z \sin(\alpha)$$

Bibliography

<bibtex>
```
@article{fu1995bdn,
  title={Broadband decoupling in NMR with frequency-modulated 'chirp'pulses},
  author={Fu, R. and Bodenhausen, G.},
  journal={Chemical Physics Letters},
  volume={245},
  number={4-5},
  pages={415--420},
  year={1995},
  publisher={Elsevier},
  url={http://dx.doi.org/doi:10.1016/0009-2614(95)01037-A}
}
```
</bibtex>

BibTeX wiki-tags

Copied from *GoogleScholar*

(first set BibTeX in Scholar Preferences)

DOI taken from online journal publication
or http://www.doi.org/search.html

Bibliography

<bibtex>

```
@article{fu1995bdn,
  title={Broadband decoupling in NMR with frequency-modulated 'chirp'pulses},
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  url={http://dx.doi.org/doi:10.1016/0009-2614(95)01037-A}
}
```

</bibtex>

Shows as:

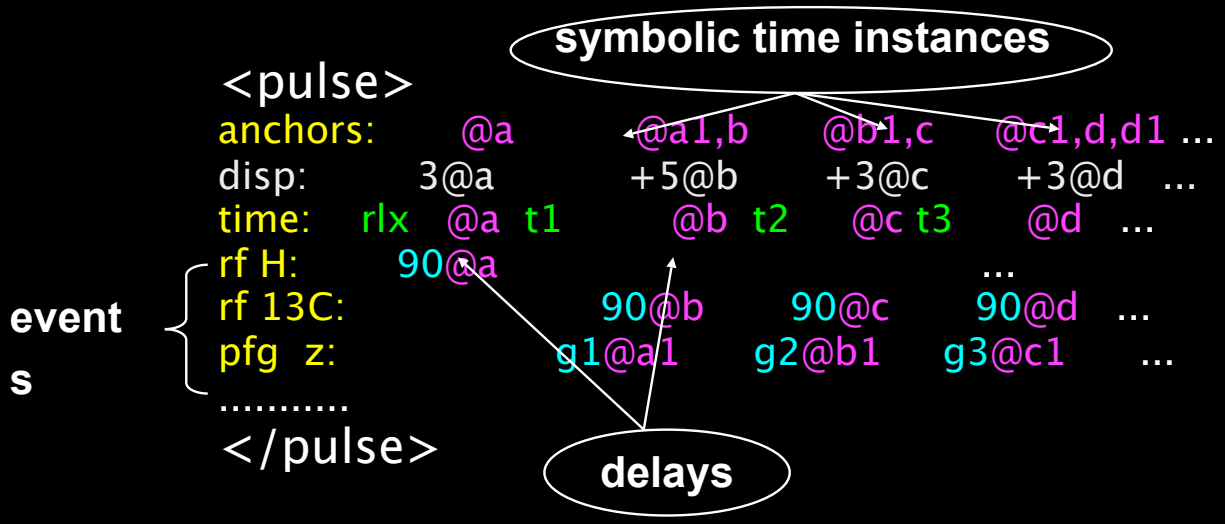
Fu, R., Bodenhausen, G. - **Broadband decoupling in NMR with frequency-modulated 'chirp'pulses**

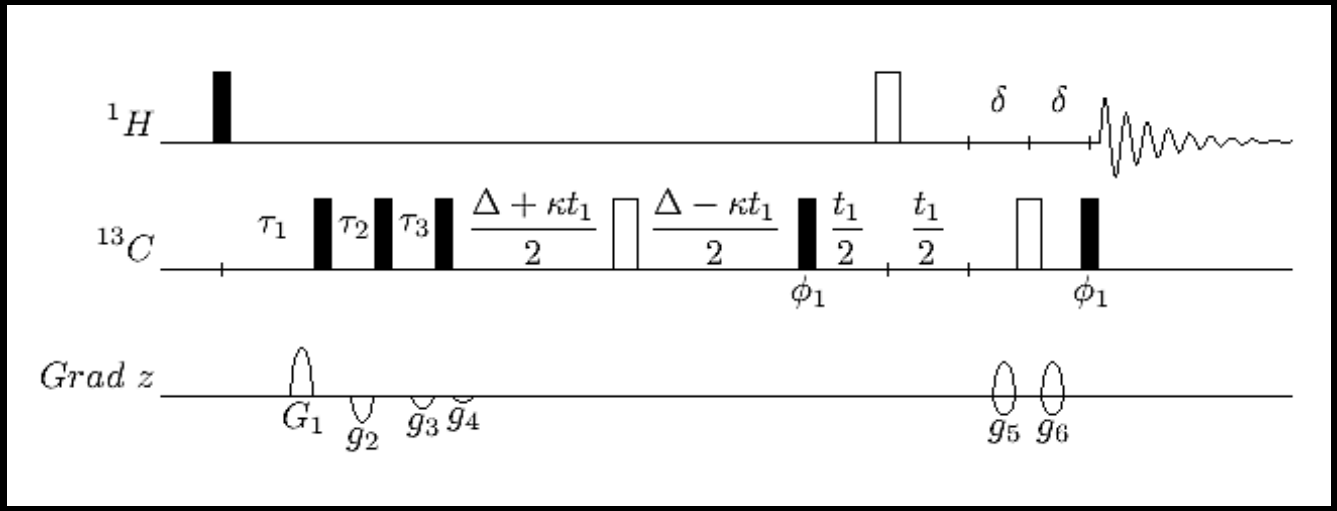
Chemical Physics Letters 245(4-5):415--420, 1995

WWW | BibTeX

Link to original article

Drawing pulse sequences





JHMBC pulse sequence, Sorensen et al.

Drawing pulse sequences

```
<pulse>
 anchors:      @a       @a1,b     @b1,c    @c1,d,d1       @e    @f    @g    @h    @j0,j,j1   @i--k      @l
 disp:       3@a       +5@b      +3@c     +3@d       +9@e  +9@f  +4@g  +4@h    +3@j    +3@i      +10@l
 time:    rlx  @a  t1      @b  t2    @c t3    @d  T1a    @e T1b @f T12 @g T12 @h d    @j    d @i--k   aq   @l
 rf H:       90@a                                    180@g               acq@k---------l
 rf 13C:               90@b     90@c     90@d      180@e  90@f=p1          180@j    90@i=p1
 pfg  z:             g1@a1    g2@b1    g3@c1 g4@d1                      g5@j0  g6@j1

 delay T1b: show_at=13C label=\frac{\Delta-\kappa t_1}{2}
 delay T1a: show_at=13C label=\frac{\Delta+\kappa t_1}{2}
 delay t2: show_at=13C label=\tau_2
 delay t1: show_at=13C label=\tau_1
 delay t3: show_at=13C label=\tau_3
 delay T12: show_at=13C label=\frac{t_1}{2}
 delay rlx: hide=true
 delay d: label=\delta

 rfchan 13C: label=^{13}C
 rfchan H: label=^1H
 pfgchan z: label=Grad.\ z

 pulse p1: phase=phi1
 acq: phase=phi2 type=fid

 phase phi1: label=\phi_1 table=0,2
 phase phi2: label=\phi_2 table=1,3

 gradient g1: strength=70 label=g_1
 gradient g2: strength=-40 label=g_2
 gradient g3: strength=-20 label=g_3
 gradient g4: strength=-10 label=g_4
 gradient g5: strength=50,-30 label=g_5
 gradient g6: strength=-30,50 label=g_6
</pulse>
```

more readable then real code

one line per channel

hardware delays are not entered in main part

can be extended to produce real code

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NMRWIKI.ORG

Started on November 8th 2007 (4 months online)

Number of articles ~150

Unique visitors ~700-1000

(not yet advertised except once via ammrl list)

Number of contributors 11

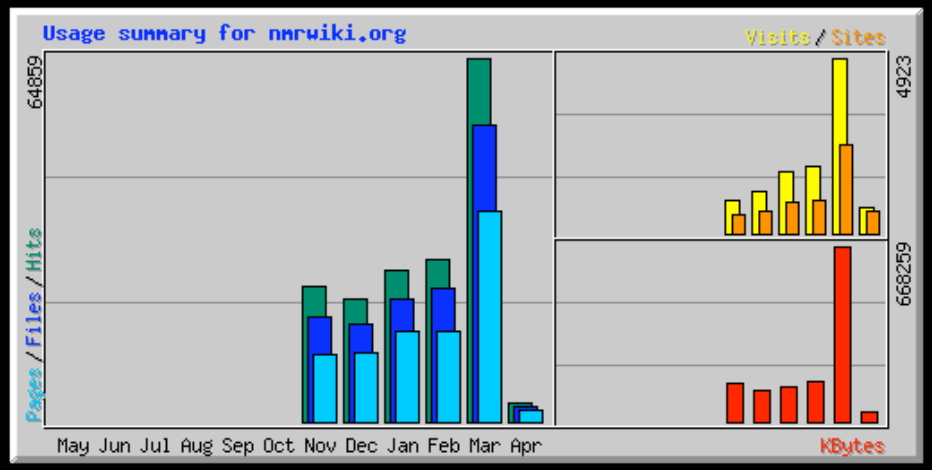
Registered users 12

only 2 spam postings

(nmrwiki is not password protected)

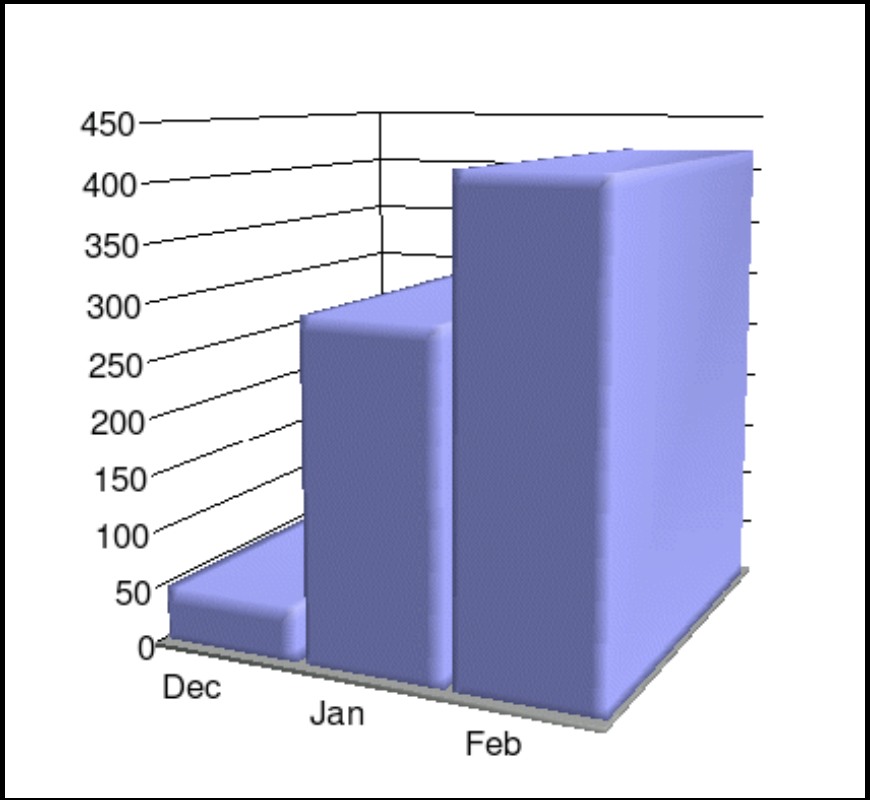
(my) cost to set up ~ $100/year

Unique visitors and visit counts



Nov'07.....Apr '08 (by April 2nd)

Visits from search engines



nmrwiki articles are well visible on the web
(count of visits via search engines by month)

Google searches

January 2008:

states-tppi
hornak mri bibtex
nmr wikipedia
scientific wiki
drawing nmr
hetloc nmr
j-hmbc bruker
locking instrument nmr
nmr calculation software
nmr tppi
talos nmr
xplor wiki
bruker instruments nmr
bruker nmr manuals
bruker probes index

February 2008:

nmr wiki
t4 lysozyme wiki
nmrpipe baseline
nmrpipe mc
scientific wiki
sparky nmr
states/tppi
cosy nmr
couplings.pdf
dipsi2etgpjcsix1
drawing nmr
nmr mars
nmr pulse sequence
nmr reference table
nmrpipe baseline correction

NMRWIKI plans:

Give away site-content backup file – coming very soon.

Some video manuals

Pulse sequence generator – within a year

Sample NMR data-base (strychnine data by Dr. Phil Dennison)

NMR & EPR periodic table

NMR & EPR world map (based on google maps)

if you have some valuable document
that you can share …

Copy/upload it to nmrwiki.org!

THANK YOU!!!