

Bibgrep - an indexing and searching tool for BibTeX files

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User manual

Bibgrep searches the named input BibTeX files for entries matching a given query. Its usage is similar to the command “grep”.

Bibgrep will create an index for each BibTeX file it touches, and save the result in `~/bibgrep.idx` (by defaults) to speedup future queries to the same files. Bibgrep watches the modification date and the size of the original BibTeX file and will update (and delete) its index whenever needed. Bibgrep searches within the BibTeX files mentioned on the command line and only theses files, even when using an index files.

The query language is an extension of the best-known query language. It uses the *key colon word* convention used at google.com (everybody’s favorite search engine).

Enter a number of keywords and bibgrep will return entries that include all the search terms (automatic “and” queries). For example, to search for McGill’s effort in robotic soccer, query:

```
robocup mcgill
```

On the command line, you would type : “`bibgrep 'robocup mcgill' file.bib`”

You can also exclude a word by adding a minus sign (“-”) in front of the term to avoid. For example, to search for green trees, rather than algorithmic ones, query:

```
tree -binary -search
```

To restrict a word to a specific field, write the field name, a colon, then the search term (all without spaces). For example, to search for George Bush’s contributions to Science Magazine, query:

```
author:George author:Bush title:Science
```

If the field name is omitted, it defaults to the previous field name explicitly mentioned. The example above can be rewritten as:

```
author:George :Bush title:Science
```

It is also possible to achieve the same effect using Quotes (although this will change if searching per sentence is ever implemented) :

```
author:''George Bush'' title:Science
```

The “author” field can also be searched by first or last name. Search using field “firstname:” and “lastname:” respectively.

Disjunctions (“or” queries) are available as well. Alternatives should be separated with a double forward slash (“//”), and either “()” “{}” or “[]” can be used for grouping, as long as they match pairwise. Negation of disjunctions also works as expected. For example, to find delicious meal accompaniments, avoiding the usual suspects from France, query:

```
(wine // champagne) -(france // bordeaux)
```

It is possible use a exclamation mark (“!”) instead of a dash. This is a useful for queries which begin with a negation, otherwise they would be mistaken for a unknown option. Note that some shells (bash) will insist on having a space between the “!” and the following word.

```
! author:Knuth    ! author:Dykstra
```

Shell-style regular expressions are supported, both as search word and as field name. “*” matches a sequence of characters, and “?” matches a single character or nothing. They are most useful to abbreviate field names and to search for the singular and plural of a word at once. To match titles with either “computer” or “computers” (and some other unlikely things), query:

```
t*:computer?
```

Search terms are always case insensitive.

Command line arguments

```
--morehelp    shows this document
--all         work with all the already indexed BibTex files
--index       specify an index file to use instead of the defaults (~/.bibgrep.idx)
--interactive  present a prompt for interactive querying
--summaries   print one line summaries instead of the full BibTex entries,
              in a format compatible with emacs' 'M-x compile' command
--sort        set the sorting field
--list        list the files indexed in the index file
--forget      remove the files given on the command line from the index
--no-save     do not save the modifications done to the index
--no-load     create an index anew, potentially clobbering the existing file)
--no-update   do not update the index, even if some BibTex files have changed
--verbose     comment the progress of the search (on stderr)
--           use the rest of the command line as a query (rather
              than at its usual place)

--no-index    short for '--no-load --no-save'
-i           short for --interactive
-sm          short for --summaries
-st          short for --sort
-l           short for --list
-r           short for --forget
-v           short for --verbose

-help        display the list of options
--help       display the list of options
```

Using bibgrep interactively

The `--interactive` option makes `bibgrep` present a prompt for interactive querying. This allow to make multiple search through a large index without having to reload it from disk each time. The commands available in interactive mode are :

```
find <query>    searches for BibTex entries.
add <file> ...  add BibTex file(s) to list of files to search
remove <file> ... remove BibTex file(s) from files to search
targets        list the file targeted for querying

index <file> ... add file(s) to the index
forget <file> ... remove file(s) from the index
list           list the indexed files
savenow       save the index to disk now

help          the this list of commands
morehelp      shows this document
```

```
exit          leave bibgrep
quit          leave bibgrep
```

The following commands changes options :

```
sort [ off | <field name> ]   sets the sort key
summaries [ on | off ]        toggle one-line summaries
update [ on | off ]           turns off automatic synchronization of the index
save [ on | off ]             disable saving the index when quitting
verbose [ on | off ]          become chatty about the search process (on stderr)
```

Typing the name of an option without the argument shows its current status

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