Citation in Latex

A practical introduction to Citation in Latex

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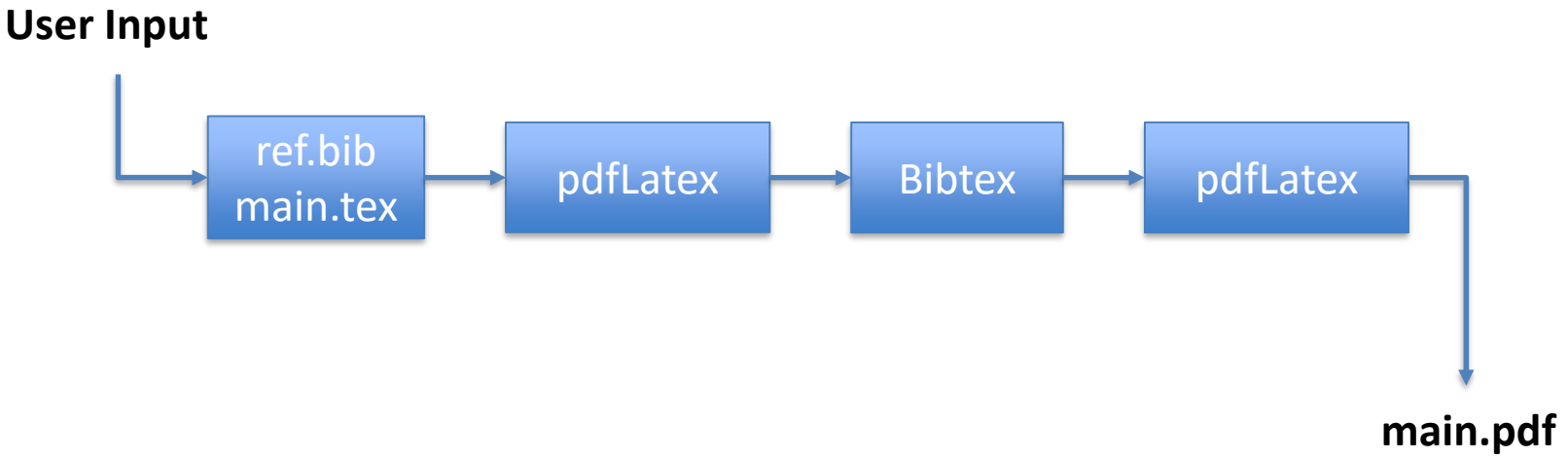
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- What is bibtex?
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Aim and objectives

- Be able to
  - Use bibtex
  - Manage references
  - Understand the limitations
  - Remove the “Fuzz”

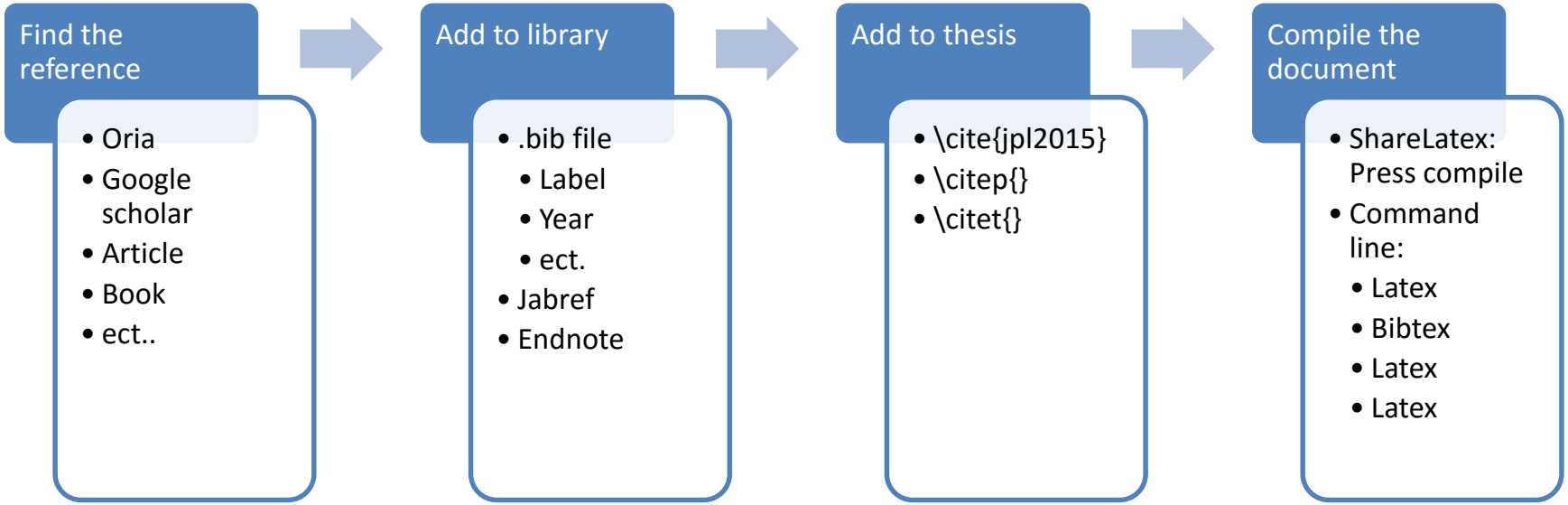
How does it work?



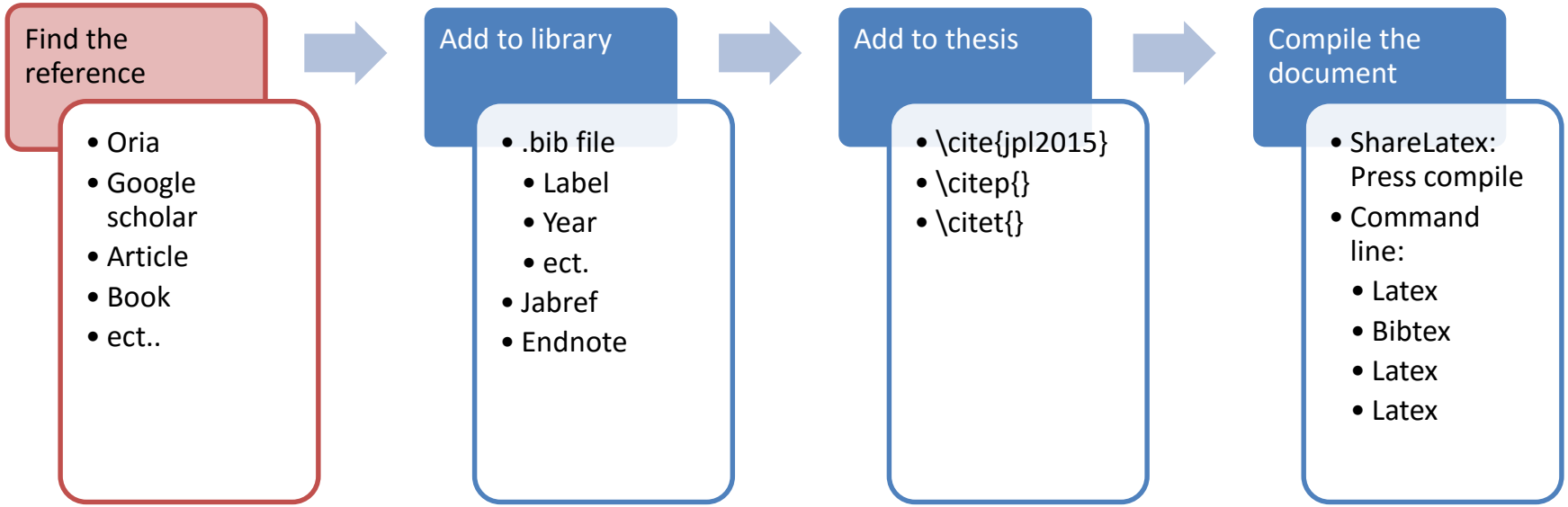
Bibtex? Biblatex? Natbib?

- Bibtex
  - Built in
  - Limited
  - Stable
- Natbib
  - Old and not Activity developed
  - Stable
- Biblatex
  - Used with biber
  - Activity developed
  - Versatile
  - Harder to use

Workflow


Find the reference
• Oria
• Google scholar
• Article
• Book
• ect..
Add to library
• .bib file
• Label
• Year
• ect.
• Jabref
• Endnote
Add to thesis
• \cite{jpl2015}
• \citep{}
• \citet{}
Compile the document
• ShareLatex: Press compile
• Command line:
• Latex
• Bibtex
• Latex
• Latex

Find the reference



Find the reference

- Try to understand the question
  - Analyze the problem
  - Use different techniques, like a mind map
- Find the right quarries / Terms
  - Synonyms, languages, operators ++
- Chose the right tools and databases
  - Google scholar, Oria ++
- More information at VIKO (www.ntnu.no/viko/ and sokogskriv.no/soking/)

Library

- There is a reason they are still around
  - Use them
- At the home page you can:
  - Search oria
  - Browse databases
  - Get help to find from other sourses.

www.ntnu.no\ub

Oria

- The library's catalogue
- Gives access to:
  - Printed material
  - Electronic material
- Easy to import to Endnote
  - Not to bibtex…

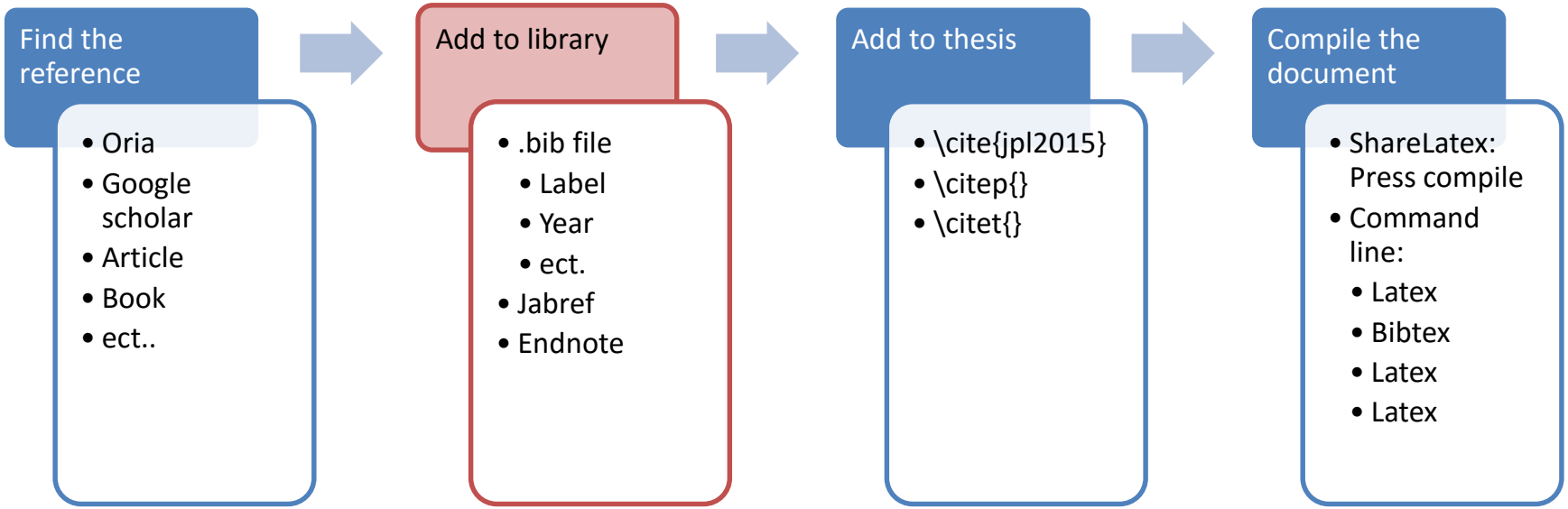
Google Scholar

- Its Google – for science!
- Its good for:
  - Articles
  - E-books
  - Conferences
  - Pre-publications
- If the library got access, you got access
  - If not at campus network, use VPN

Other sources

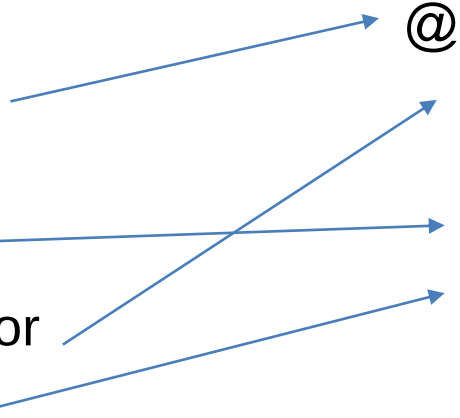
- Professors
- Articles and books
  - List of references
- Internet
- Other databases
  - See www.ntnu.no\ub

Add to library



The bibtex file (.bib)

- Consists of:
  - Type of entry
  - Label
  - Title
  - Name of author
  - Year
  - ect



```
@article{label1990,
    author = {Peter Adams},
    title = {The title of the work},
    journal = {The name of the journal},
    year = 1993,
    number = 2,
    pages = {201-213},
    month = 7,
    note = {An optional note},
    volume = 4
}
```

Types of entries

@article - The most common type
@book
@manual
@masterthesis
@misc – For everything
@phdthesis
@techreport
+++

How to: Chose label

- Good naming convention is important

Not: “Boka” or “textbook” or “Denbokasomjegik…”

Do: “Normann2015” or “Normann2015cake”

Convention:

[last name of principle author][year][keyword]

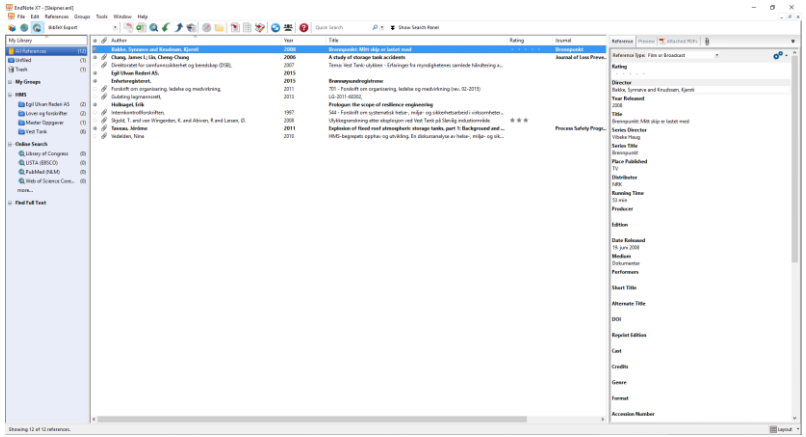
In the document

\bibliographystyle{**[Citation style]**}

\bibliography{**[Name of reference file]**}

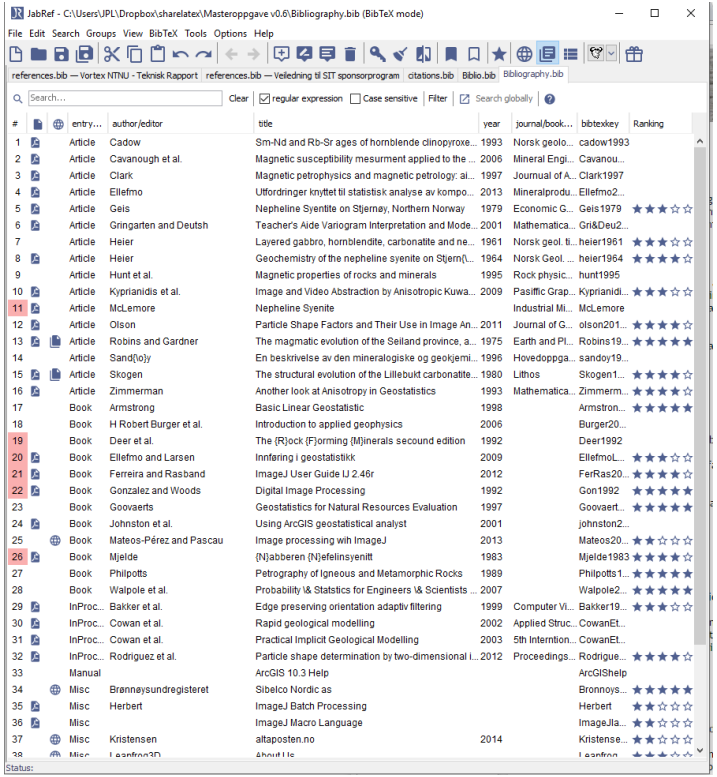
Reference management: Endnote

- Powefull tool, but not for LaTex
- Should be used if you use Word
- Export format «Bibtex» + Labels



Reference management: JabRef

- http://www.jabref.org/
- Simple
- Uses the .bib file
- Good with LaTex



How to: Enter names

Not:

{Ola Nordmann, Peter Pan and Kari Nordmann}

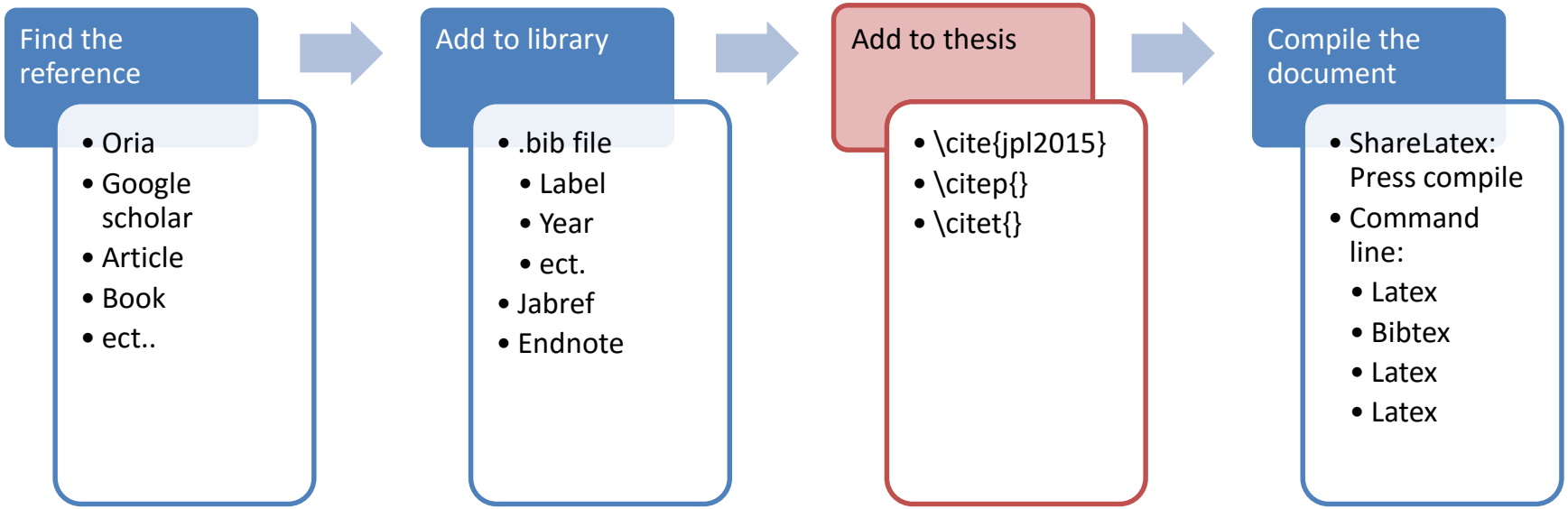
➔ Ola Nordmann and Nordmann (2015)

Do:

{Nordmann, Ola **and** Pan, Peter **and** Nordmann, Kari}

➔ Nordmann et al. (2015)

Add to thesis



Add a citation

\cite{[label]}

How to: cite (Text version)

- **Someone (2012)** show that the origin of threes are black clouds. This has later been proved to be a large overstatement **(Other et al, 2015)**.

- Most trees in the forest is brown, and all of them are not square. In some species, all of the orange trees are from seeds of blue trees. **(Ola Kule, 2015)**

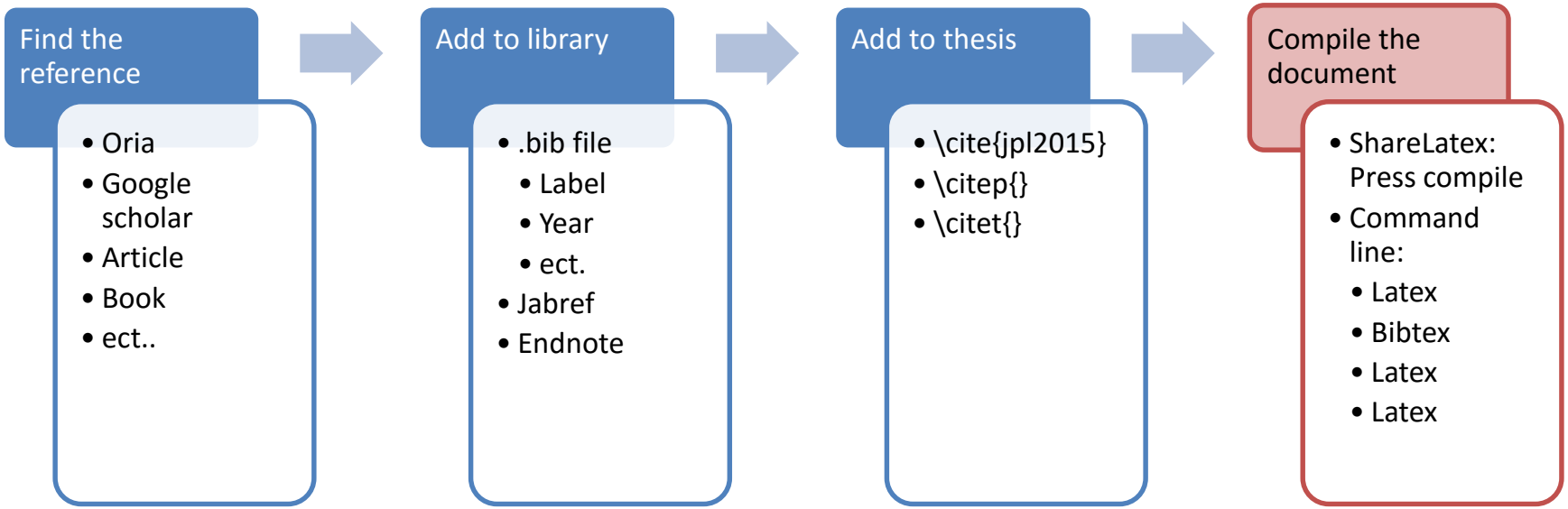
Citation types (natbib)

\cite{} ➔ Einstein (1905)

\citep{} ➔ (Einstein, 1905)

\cite[see][chap 2]{einstein} ➔ (see Einstein, 1905, chap 2)

Compile the document



How to: Compile the document

ShareLatex:

- Press compile



Command line:

- Latex main.tex
- Bibtex main
- Latex main.tex
- Latex main.tex

Custom bibtex style

- NOT SIMPLE!
- Can use «makebst»
- Simpler to use Biblatex + Biber

- Word of advise: **Avoid it**

5 practical exercises

PRACTICAL EXERCISES

ShareLatex.com

- https://innsida.ntnu.no/wiki/-/wiki/English/ShareLaTeX
  - Campus License
- Synchronies with GitHub and Dropbox
- Easy to collaborate with others
- No need to install anything

Go to: www.tiny.cc/tj8v9x (Assignments)

Task 1: Title Page

Add this as a reference:

Title:

`Snake robots: modelling, mechatronics, and control`

Hint:

`author, title, publisher, year`

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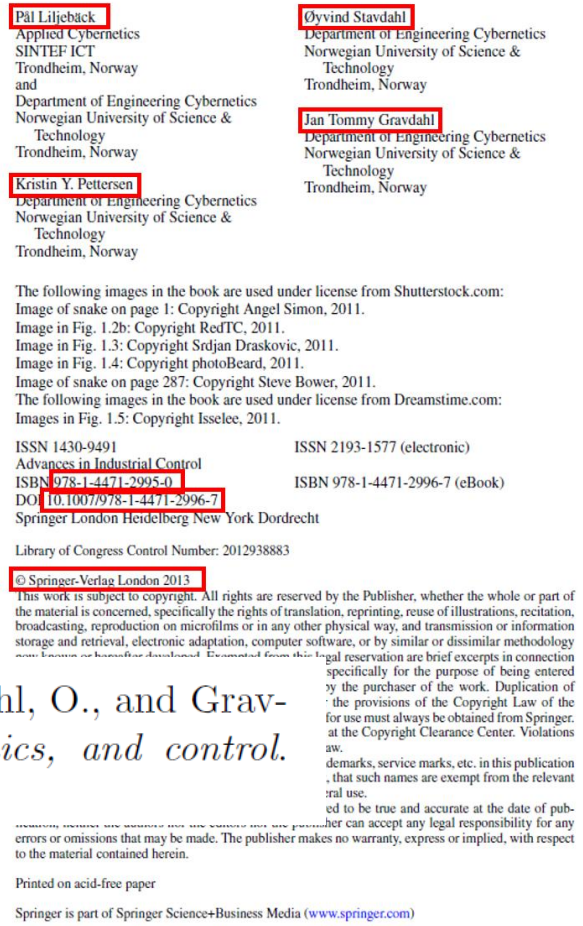
Printed on acid-free paper

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Task 1: Solution

```
@book{liljeback2012snake,
  title={Snake robots: modelling, mechatronics, and
control},
  author={Liljeb{\"a}ck, Pal and Pettersen, Kristin
Ytterstad and Stavdahl, Oyvind and Gravdahl, Jan Tommy},
  year={2012},
publisher={Springer Science \& Business Media}
}
```



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[Liljebäck et al., 2012] Liljebäck, P., Pettersen, K. Y., Stavdahl, O., and Gravdahl, J. T. (2012). *Snake robots: modelling, mechatronics, and control*. Springer Science & Business Media.

Task 2: Oria

Go to: www.ntnu.no/ub

Search and add:

Electromagnetic Principles for In Situ Ice Thickness Determination - Field Experiments and Development of New Methods for Interpretation

Hint: `author`, `title`, `school`, `year`, `month`

Task 2: Solution

```
@mastersthesis{lorentzen2015,
        author= {Lorentzen, Johannes Pippidis},
        title= {Electromagnetic […]hods for Interpretation},
        school= {Norwegian University of Science and Technology},
        year= 2015,
        month= 7
}
```



[Lorentzen, 2015] Lorentzen, J. P. (2015). Electromagnetic principles for in situ ice thickness determination - field experiments and development of new methods for interpretation. Master's thesis, Norwegian University of Science and Technology.

Task 3: Google Scholar

- Tai’s Method

Go to: scholar.google.com

Search for: Mary Tai 1994

Task 3: Solution

```
@article{tai1994,
    title={A mathematical model for […]metabolic curves},
    author={Tai, Mary M},
    journal={Diabetes care},
    volume={17},
    number={2},
    pages={152--154},
    year={1994},
    publisher={Am Diabetes Assoc}
}
```



[Tai, 1994] Tai, M. M. (1994). A mathematical model for the determination of total area under glucose tolerance and other metabolic curves. *Diabetes care*, 17(2):152–154.

Task 4: A webpage

Go to: tinyurl.com/7bzaoy3

Hint:

\usepackage[hidelinks]{hyperref}
\url{http://vg.no}

howpublished

note

Task 4: Solution

```
@misc{mayntz2016ducks,
      title = {What to Feed Ducks},
      author={Mayntz, Melissa},
      year={2016},
      howpublished = {\url{http://birdi[…]duckseat.htm}},
      note = {Accessed: 2016-03-14}
}
```



[Mayntz, 2016] Mayntz, M. (2016). What to feed ducks. http://birding.about.com/od/birdfeeders/a/whatduckseat.htm. Accessed: 2016-03-14.

Task 5: Change to natbib / bilatex

1) Change the document to use **natbib**

2) Change the document to use **biblatex + biber**

Task 5: Solution

1) natbib

```
\usepackage{natbib}
```

2) Biblatex + biber

```
\usepackage[style=authoryear,
            sortcites=true,
            sorting=nty,
            backend=biber]{biblatex}

\addbibresource{references.bib}


\printbibliography
```

Solution:
https://www.sharelatex.com/templates/56e6b530f57112f43eeb1fea

Links

- www.bibtex.org/
- www.sharelatex.com/learn/Bibliography_management_with_bibtex
- www.ntnu.no\ub
- http://www.andy-roberts.net/writing/latex/bibliographies