

Lecture 3

# Finding Literature

---

UNIVERSITY OF AUCKLAND

COMPSCI 289

Prof. Robert Amor

# Learning Objectives

---

- To identify quality literature
- To understand quality indicators for literature
- To know what types of literature exist
- To be able to find and manage literature

# How do you find information?

---

- What do you do currently?
  - Why is this good?
  - Why is this bad?
  
- Motivation
  - Standing on the shoulders of giants
    - Understanding where the forefront of research is
    - Research something new
    - Don't reinvent the wheel
    - Learn about dead-ends

# Quality Obsession

---

“No one knows how many scientific journals there are, but several estimates point to around 30,000, with close to two million articles published each year.”  
(Altbach and de Wit 2018)

- So how do we know what is worth reading?
  - Quality Publication Aggregators
  - Peer Review
  - Citations
  - Knowledge of Journal or Publisher
  - Knowledge of Institution
  - Knowledge of Author

# Peer Review Variables

## Transparency



### Closed peer review

- Single blind
- Double blind
- Triple blind



### Open peer review

- Names of reviewers/editors may be visible to authors
- Reviewers' reports may be published
- Editorial decision/comments may be public

## Timing and Location



### Pre-publication

- Review submitted on preprint server prior to author submission to journal
- Review submitted through journal peer review system after author submission to journal
- Reviews accompany manuscript when transferred to a different journal within publisher/society/subject network



### Post-publication

- Alongside published article as formal part of editorial process
- Informal: blogs, social media, etc.

## Reviewer Selection



### Authors can suggest

Preferred or non-preferred reviewers



### Editors invite reviewers



### Reviewers "bid" for papers

## Review Process



### Independent review



### Interactive review

Reviewers dialogue with authors



### Collaborative review

Reviewers can discuss feedback with each other to reach more informed assessment of article

## Assessment of...



### Science only



### Science +

- Novelty
- Impact



WILEY

321907

# Helpful Resources

---

- Quality Publication Aggregators – and others
  - Scopus, Science Direct (Elsevier)
  - Springer Link
  - IEEExplore
  - ACM Digital Library
  - Web of Science
  
  - Google Scholar
  
  - Author homepages
  - Research groups
  - Relevant conferences/journals

# Library Resources

---

- Physical books and journal stacks
- Online databases
  - 100's available at UoA library
- Librarian

# Internet Resources

---

- Google Scholar

- Wide coverage over conferences and journals
- Access to PDF for many articles
- Link to publisher's publication URL (DOI)
- Citation information
- Known author profiles

But

- Quality not guaranteed
- Self-citations

School of Comp x | M Inbox (4,002) - t x | G weather aucklan x | PKP Submissions x | COMPSCI 289: F x | SOFTER | SOFTE x | parametric 3d m x +

scholar.google.com/scholar?hl=en&as\_sdt=0%2C5&q=parametric+3d+modelling&btnG=

Apps Bookmarks trebor bookmarks Yonsei

Google Scholar parametric 3d modelling

Articles About 227,000 results (0.07 sec) My profile My library

Any time  
 Since 2020  
 Since 2019  
 Since 2016  
 Custom range...

Sort by relevance  
 Sort by date

include patents  
 include citations

Create alert

[PDF] Use of **parametric 3D modelling**-tying parameter values to spreadsheets at designing molds for plastic injection  
[M Fabian](#), R Boslai, P Ižol, J Janeková... - Manufacturing ..., 2015 - journalmt.com  
 The current mechanical engineering is inconceivable without the implementation of CAX systems in design and manufacturing process of individual components. The automotive industry is a clear evidence of how CAX systems affect the innovation cycle of its product-a ...  
 ☆ Cited by 14 Related articles

[PDF] journalmt.com  
 Find Full Text @ Auckland

Aircraft **Parametric 3D Modelling** and Panel Code of Analysis for Conceptual Design  
[M Tarkian](#), F Javier Zaldivar Tessier - 2007 - diva-portal.org  
 Throughout the development of this report there will be a brief explanation of what the actual Aircraft Design Process is and in which stages the methodology that the authors are proposing will be implemented as well as the tools that will interact to produce this ...  
 ☆ Cited by 12 Related articles All 4 versions

[PDF] diva-portal.org

**Parametric** evaluation of **3D** dispersion of rockfall trajectories  
[GB Crosta](#), [F Agliardi](#) - 2004 - hal.archives-ouvertes.fr  
 ... lateral dispersion. In this research, a **modelling** approach based on high res-olution **3D** numerical **modelling** (Agliardi and Crosta, 2002, Page 4. GB Crosta and F. Agliardi: **Parametric** evaluation of **3D** dispersion 585 Fig. 1. Rocky ...  
 ☆ Cited by 128 Related articles All 11 versions Web of Science: 74

[PDF] archives-ouvertes.fr

**Parametric modelling** and segmentation of vertebral bodies in **3D** CT and MR spine images  
[D Štern](#), B Likar, F Pernuš... - Physics in Medicine & ..., 2011 - iopscience.iop.org  
 Accurate and objective evaluation of vertebral deformations is of significant importance in clinical diagnostics and therapy of pathological conditions affecting the spine. Although modern clinical practice is focused on three-dimensional (**3D**) computed tomography (CT) ...  
 ☆ Cited by 96 Related articles All 8 versions Web of Science: 49

[PDF] iop.org  
 Find Full Text @ Auckland

Related searches

**segmentation of vertebral bodies** **spine images** parametric modelling  
 parametric modelling **laser data** parametric models  
**façade** modelling parametric models **automatic method** parametric models  
 parametric cad dynamic models

[HTML] Historic building information **modelling** (HBIM)  
[M Murphy](#), E McGovern, [S Pavia](#) - Structural Survey, 2009 - emerald.com  
 ... and capitol. New developments in solid and **parametric 3D modelling** which have accelerated the design process have potential also to accelerate the vector mapping process onto laser scan surveys. Geometric **parametric** ...  
 ☆ Cited by 214 Related articles All 4 versions

[HTML] emerald.com  
 Full View

**Parametric** documenting of built heritage: **3D** virtual reconstruction of architectural details  
 C Chevrier, N Charbonneau... - International ..., 2010 - journals.sagepub.com  
 ... The use of **parametric** objects leads to a significant saving in time by optimising the **modelling**

[PDF] sagepub.com  
 Full View



**John Hosking**

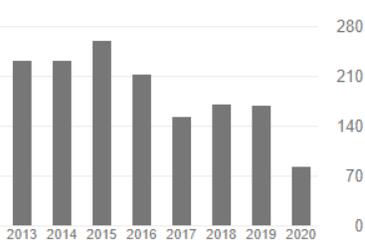
FOLLOW

Dean of Science, [University of Auckland](#)  
 Verified email at auckland.ac.nz - [Homepage](#)  
[Software Engineering](#) [Software Tools](#) [Visual Languages](#)

TITLE	CITED BY	YEAR
<a href="#">Inconsistency management for multiple-view software development environments</a> J Grundy, J Hosking, WB Mugridge IEEE Transactions on Software Engineering 24 (11), 960-981	228	1998
<a href="#">Design pattern modelling and instantiation using DPML</a> D Mapelsden, J Hosking, J Grundy Proceedings of the Fortieth International Conference on Tools Pacific ...	174	2002
<a href="#">A generic approach to supporting diagram differencing and merging for collaborative design</a> A Mehra, J Grundy, J Hosking Proceedings of the 20th IEEE/ACM international Conference on Automated ...	156	2005
<a href="#">Realistic load testing of web applications</a> D Draheim, J Grundy, J Hosking, C Lutteroth, G Weber Conference on Software Maintenance and Reengineering (CSMR'06), 11 pp.-70	110	2006
<a href="#">Realistic Load Testing of Web Applications</a> C Lutteroth, G Weber, D Draheim, J Hosking, J Grundy Conference on Software Maintenance and Reengineering (CSMR'06), 57-70	440 *	2006
<a href="#">An e-whiteboard application to support early design-stage sketching of UML diagrams</a> Q Chen, J Grundy, J Hosking IEEE Symposium on Human Centric Computing Languages and Environments, 2003 ...	107	2003
<a href="#">Multi-methods in a statically-typed programming language</a> WB Mugridge, J Hamer, JG Hosking European Conference on Object-Oriented Programming, 307-324	107	1991
<a href="#">Pounamu: A meta-tool for multi-view visual language environment construction</a> N Zhu, J Grundy, J Hosking Visual Languages and Human Centric Computing, 2004 IEEE Symposium on, 254-256	89	2004
<a href="#">Serendipity: integrated environment support for process modelling, enactment and work coordination</a> JC Grundy, JG Hosking Automated Software Engineering 5 (1), 27-60	89	1998
<a href="#">Information visualisation utilising 3D computer game engines case study: a source code comprehension tool</a> B Kot, B Wuensche, J Grundy, J Hosking Proceedings of the 6th ACM SIGCHI New Zealand chapter's international ...	80	2005
<a href="#">Constructing component-based software engineering environments: issues and experiences</a>	78	2000

Cited by [VIEW ALL](#)

	All	Since 2015
Citations	4557	1047
h-index	35	18
i10-index	113	34



Co-authors [VIEW ALL](#)

- John Grundy**  
Australian Laureate Fellow and ...
- Beryl Plimmer**  
University of Auckland
- massila kamalrudin**  
Universiti Teknikal Malaysia Mela...
- Ewan Tempero**  
University of Auckland, Victoria ...
- Mark Apperley**  
University of Waikato
- James Diprose**  
Independent Researcher
- Bruce MacDonald**  
Auckland OR Calgary OR Canter...
- Christof Lutteroth**  
Computer Science, University of ...
- Burkhard Wünsche**  
Assistant Professor of Computer ...
- Jim Warren**  
Professor of Health Informatics, ...

# Types of Publication

---

- Book
- Book chapter
- Conference article
- Internet site
  - Wikipedia
- Journal article
- Magazine article (trade or popular journal)
- Patent
- Standard
- Technical report
- Thesis/Dissertation
- White paper
- ...

# Search Terms

The screenshot shows the ACM Digital Library's advanced search interface. The browser address bar is at the top, showing the URL `dl.acm.org/search/advanced`. The page header includes the ACM Digital Library logo and navigation links like 'Browse', 'About', 'Sign in', and 'Register'. Below the header is a navigation menu with categories: Journals, Magazines, Proceedings, Books, SIGs, Conferences, and People. A search bar is also present in the header.

The main content area is titled 'Advanced Search' and contains several sections:

- Search**: A sub-section with the text 'Search anything within the ACM Digital Library or go to your [Saved Searches](#)'.
- Search items from:** A dropdown menu currently set to 'The ACM Full-Text collection'.
- Search Within**: A dropdown menu set to 'Anywhere' and a text input field labeled 'Enter Search term'.
- Filters**: A dropdown menu set to 'Published in', a 'Match All' dropdown, and another 'Enter Search term' input field.
- Publication Date**: Radio buttons for 'All dates' (selected), 'Last', and 'Custom range'. Below 'All dates' is a 'Please Select' dropdown. Below 'Custom range' are 'From:' and 'To:' sections, each with 'Select Month' and 'Select Year' dropdowns.

On the right side of the page, there is a 'SEARCH TIPS for text fields' section with the following content:

- Boolean searches**: 'Use the boolean operators **AND**, **OR**, and **NOT** to narrow or broaden your search results. By default, an AND relationship is assumed between Search Within terms unless you specify a different operator in the **Edit Query**: input.'
- Searching for phrases**: 'Enclose your search terms within quotation marks (" ") to search for an exact match of that phrase. If no quotation marks are used, the search results will be populated with publications that contain your search terms somewhere in the text. For example, if you search for "machine learning" the search engine will limit the results to publications that contain this exact phrase.'
- Wildcards**: 'Use an asterisk (\*) to specify any number of unknown characters. For example, if you search for **comput\***, the search engine will provide results that contain words such as compute, computation, computing, etc. Use a question mark (?) to specify any single unknown character. For example, if you search for **compute?**, the search engine will provide results that contain words such as computer or computed but not computers because the question mark represents only one character.'

A 'NOTE: Wildcards cannot be used at the start of a' is partially visible at the bottom of the tips section.

At the bottom left of the page, there is a 'Feedback' button.

# Scope of search

---

- To develop/refine your research question
- Define the limits of the review
  - Too broad: Human-Computer Interaction
  - Too narrow: How does Human-Computer Interaction impact productivity of construction professionals with tablets on site?
  - Just right: Human-Computer Interaction and “construction professionals”

# Literature Review

---

- An account of what has been published on your topic of interest
- Purpose – to critically analyze a segment of a published body of knowledge through summary, classification, and comparison of prior studies
- Traditional
  - Identifies and summarises a body of work
  - Identifies gaps and research frontier
  - Coverage may not be complete
- SLR – Systematic Literature Review
  - Rigorous process to identify 'all' relevant literature
  - Identifies and summarises a body of work
  - Identifies gaps and research frontier

# Systematic Literature Review/Process

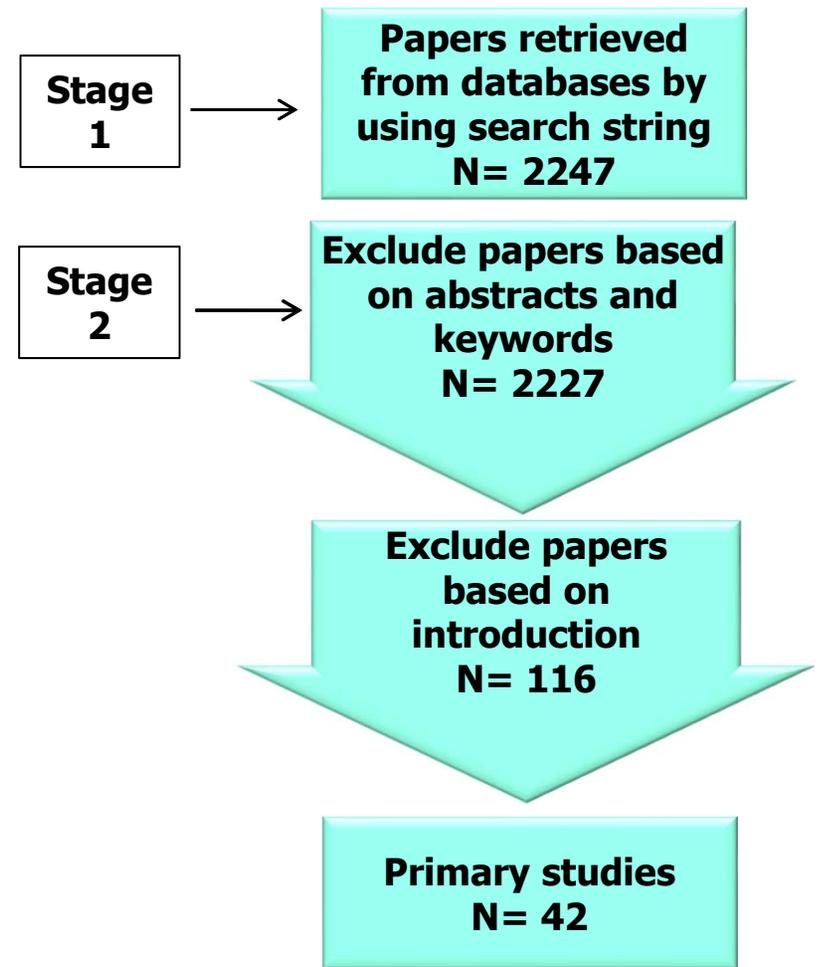
---

- Search string:

*("knowledge manag\*" OR "learning manag\*" OR "reflective") AND ("agile" OR "scrum" OR "XP" OR "Lean") AND ("software" AND "team")*

- Databases:

- Springer
- Scopus
- IEEExplore



# Ranking of Journals and Conferences

- ERA (Excellence in Research for Australia)
  - Community ranked thousands of journals and conferences
  - A\*, A, B, C
- Web of Science
  - Impact Factor
  - Rank in Category

IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE

**Impact Factor**  
17.861 15.395  
2019 5 year

JCR® Category	Rank in Category	Quartile in Category
COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE	1 of 136	Q1
ENGINEERING, ELECTRICAL & ELECTRONIC	2 of 266	Q1

Data from the 2019 edition of [Journal Citation Reports](#)

**Publisher**  
IEEE COMPUTER SOC, 10662 LOS VAQUEROS CIRCLE, PO BOX 3014, LOS ALAMITOS, CA 90720-1264

**ISSN:** 0162-8828

**Research Domain**  
Computer Science  
Engineering

Close Window

# Paper Citations

- A proxy for quality?
  - Self citations not always disambiguated

Web of Science



Search Search Results Tools Searches and alerts Search History Marked List

Find Full Text Full Text from Publisher Find PDF Export... Add to Marked List

2 of 197

**NEURAL NETWORK ENSEMBLES**

By: HANSEN, LK (HANSEN, LK); SALAMON, P (SALAMON, P)  
[View Web of Science ResearcherID and ORCID](#)

IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE  
Volume: 12 Issue: 10 Pages: 993-1001  
DOI: 10.1109/34.58871  
Published: OCT 1990  
Document Type: Article  
[View Journal Impact](#)

**Citation Network**  
In Web of Science Core Collection  
**1,966**  
Times Cited  
[Create Citation Alert](#)  
All Times Cited Counts

Google Scholar Neural Network Ensembles

Articles About 266,000 results (0.09 sec)

Any time  
Since 2020  
Since 2019  
Since 2016  
Custom range...

**Neural network ensembles**  
[LK Hansen, P Salamon](#) - IEEE transactions on pattern analysis ..., 1990 - ieeexplore.ieee.org  
Several means for improving the performance and training of neural networks for classification are proposed. Crossvalidation is used as a tool for optimizing network parameters and architecture. It is shown that the remaining residual generalization error can ...  
☆ 📄 Cited by 4441 Related articles All 21 versions

# Reference Chains

---

- Found a great article
  - What research does it cite?
  - What does it cite to support particular claims in the paper?
  - What related work does it cite?

Ren and Anumba 2004.pdf - Adobe Acrobat Pro

File Edit View Window Help

Create [Icons]

13 / 14 [Navigation Icons] 108% [Zoom] [Tools] [Comment]

ture and interaction mechanism based on the construction problems such that if agents follow this, the overall system will solve the particular problem. The design of agent-based systems for construction problems have all the problems associated with designing traditional distributed, concurrent systems and have additional difficulties that arise from having flexible and sophisticated interactions between autonomous problem-solving components. The great power and flexibility of MAS allows developers to tailor the system to various construction problems as long as a properly designed architecture and collaboration mechanism could be built. Besides the collaboration mechanism, the integration of engineering domain knowledge is another important concern of the construction agent research community. For example, the development of domain knowledge based ontology, integration with existing legacy systems, and the implementation of conceptual models with available agent building toolkits are all difficult tasks in the development of MAS in construction.

Considering the complexity and dynamics of construction problems, there are many other important issues to be addressed for the effective application of agent-based systems. One particularly important aspect is the development of agent's learning and adaptive ability in construction applications. Change management is always a top concern for project managers, either during the project planning, collaborative design, resource management or execution processes. System developers are unable to foresee all potential situations an agent could encounter and specify agent behaviour optimally in advance. The agent's ability to learn from each other and the external environment provide a unique and powerful tool to tackle the changing environment. However, since the study of MAS in construction is relatively

## References

- [1] C.J. Anumba, O.O. Ugwu, L. Newnham, A. Thorpe, Collaborative design of structures using intelligent agents, *Automation in Construction* 11 (1) (2002) 89–103.
- [2] M. Beer, M. d'Inverno, R.N. Jennings, M. Luck, C. Preist, M. Schroeder, Negotiation in multi-agent systems, *Knowledge Engineering Review* 14 (3) (1999) 285–289.
- [3] J. Bilek, D. Hartman, Collaborative structural engineering based on multiagent systems, *Proceedings of the 9th International EG-ICE Workshop Advances in Intelligent Computing in Engineering*, Darmstadt, Germany 2002, 2002, pp. 49–60.
- [4] J. Bento, B. Feijo, A post-object paradigm for building intelligent CAD systems, *Artificial Intelligence in Engineering* 11 (3) (1997) 231–244.
- [5] M.P. Case, Y.S. Lu, Discourse model for collaborative design, *Computer-Aided Design—Special Issue: Computer-Aided Concurrent Design* 28 (5) (1996) 333–345.
- [6] J.D. Chiou, R.D. Logcher, Testing a Federation Architecture in Collaborative Design Process—Final Report. Report no. R96-01, CERL, 1996.
- [7] M.R. Cutkosky, R.S. Englemore, R.E. Fikes, M.R. Genesereth, T.R. Gruber, W.S. Mark, J.M. Tenebaum, J.C. Weber, PACT: an experiment in integrating concurrent engineering systems, *IEEE Computer* 26 (1) (1993) 28–37.
- [8] H. Denk, M. Schnellenbach-Held, Models for an agent-based public tendering procedure according to German regulations, *Proceedings of the 9th International EG-ICE Workshop Advances in Intelligent Computing in Engineering*, Darmstadt, Germany, 2002, pp. 40–48.
- [9] DESSYS, <http://www.ds.arch.tue.nl/Research/Agents/DessysIntro.stm>, (2000).
- [10] E.H. Durgee, V.R. Lesser, D.D. Corkill, Trends in cooperative distributed problem solving, *IEEE Transactions on Knowledge and Data Engineering KDE*, 1 (1) (1989) 63–83.
- [11] S. Fennes, U. Flemming, C. Hendrickson, M.L. Maher, R. Quadrel, M. Terk, R. Woodbury, *Concurrent Computer-Integrated Building Design*, PTR Prentice-Hall, New Jersey, 1994.
- [12] L. Foner, What's an Agent, Anyway? A Sociological Case Study, Agents Memo 93-01, MIT Media Lab, Cambridge, MA, 1993.
- [13] J. Heckel, K.D. McGraw, J.D. Morton, P. Lawrence, The agent collaboration environment, an assistant for architects and engi-

# Researchers and Research Groups

---

- Typically researchers work on a topic for many years
- Look at their bibliography
  - Google Scholar
  - Personal websites
- Researchers often part of a larger research group
  - Search for the group website

School of Co x | M Inbox (4,003) x | G weather auct x | PKP Submissions x | COMPSCI 28 x | SOFTER | SO x | beast auckla x | BEAST 2 x

Not secure | beast2.org

Apps | Bookmarks | trebor bookmarks | Yonsei



# Beast2

## Bayesian evolutionary analysis by sampling trees

ABOUT | BOOK | CITATION | TUTORIALS | FAQ | BLOG | DEVELOPERS

### RECENT POSTS

- Developer guide  
June 20, 2020
- Should I click the estimate box in BEAUti?  
May 20, 2020
- Are these tree sets the same?  
April 20, 2020
- What is new in v2.6.2  
March 02, 2020
- Adaptive Metropolis Coupled MCMC(MC3) works!  
January 14, 2020

## ABOUT

BEAST 2 is a cross-platform program for Bayesian phylogenetic analysis of molecular sequences. It estimates rooted, time-measured phylogenies using strict or relaxed molecular clock models. It can be used as a method of reconstructing phylogenies but is also a framework for testing evolutionary hypotheses without conditioning on a single tree topology. BEAST 2 uses Markov chain Monte Carlo (MCMC) to average over tree space, so that each tree is weighted proportional to its posterior probability. BEAST 2 includes a graphical user-interface for setting up standard analyses and a suit of programs for analysing the results.

## Download

The latest version of BEAST 2 is version [2.6.2](#). To install this version, select one of the following to download the version for your operating system:

- Download for Windows [without java \(8MB\)](#) / [with java \(45MB\)](#)
- Download for Mac OS X [without java \(8MB\)](#) / [with java \(45MB\)](#)
- Download for Linux [without java \(8MB\)](#) / [with java \(47MB\)](#)

Alternatively, if you already have v2.6.0 or v2.6.1 installed, you can upgrade via the package manager.

If you download a version of BEAST without Java, you need to install Java separately (for OSX, [JDK 8](#) is recommended). BEAST requires Java version 8 or higher. Older versions are available from the [BEAST2 releases web page](#).

The BEAST 2 source code is available from the [GitHub repository](#), which produces the latest cutting edge jar file here: [beast.jar](#).

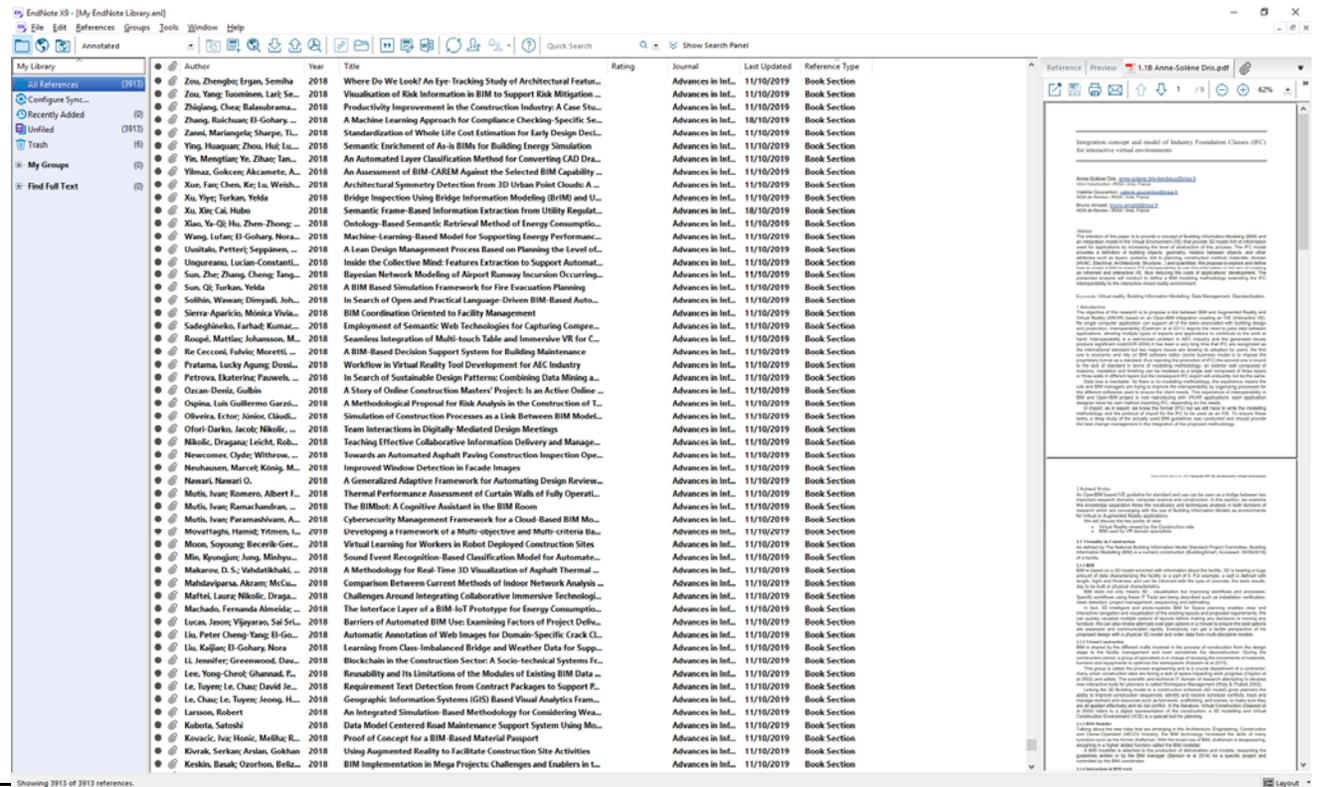
## XML reference

The XML reference is available in the [online manual](#).

# Article Management

- Tools available to manage literature information

- EndNote
  - License for university students
  - Original papers plus notes and meta-data
- Mendeley
- Refworks
- BibTeX



School of Compu x jdimyadi/openifc x Submissions in R x Course: Advanced x CIB WBC 2019 - C x Google Maps x Design for Manuf x

https://www.sciencedirect.com/science/article/pii/S092658051731110X

Apps ★ Bookmarks trebor bookmarks Yonsei

ScienceDirect Journals & Books ? Create account Sign in

다운전 전체 분야의 약 14,000여 종의 eBook을 ScienceDirect를 통해 확인하실 수 있습니다.

Download PDF Share Export Search ScienceDirect Advanced

Outline

Highlights

Abstract

Keywords

1. Introduction
2. Characteristics of prefabricated buildings
3. Traditional parametric design system with BIM
4. Concept and process of DFMA-oriented param...
5. Methods for assisting DFMA-oriented parametri...
6. DFMA-oriented parametric design examples
7. Results and discussion
8. Conclusions

Acknowledgements

References

Show full outline

Figures (11)

Show all figures

ELSEVIER

Automation  
Volume 88

Design for Manufacture oriented parametric buildings

Zhenmin Yuan <sup>a</sup>, Chengshuang Sun <sup>b, c, d</sup>, Yaowu Wang <sup>b, c</sup>

Show more

https://doi.org/10.1016/j.autcon.2017.12.021

Get rights and content

Export

- Save to Mendeley
- Save to Refworks
- Export citation to RIS
- Export citation to BibTeX
- Export citation to text

Recommended articles

BIM in off-site manufacturing for buildings  
Journal of Building Engineering, Volume 14, 20...

Download PDF View details

Critical review of the research on the man...  
Habitat International, Volume 43, 2014, pp. 240...

Download PDF View details

Barriers to promoting prefabricated const...  
Journal of Cleaner Production, Volume 172, 201...

Download PDF View details

1 2 Next

Citing articles (10)

Article Metrics

Citations

Citation Indexes: 10

Captures

Readers: 102

PLUMX View details

Feedback

# Summary

---

- An overwhelming amount of literature available
  - Need strategies to search for relevant information
    - Repositories versus Internet search
    - Keywords and constraining search criteria
    - Following references, researchers and groups
  - Need to be able to identify quality of information
    - Publication venue
    - Review process
    - Citations
  - Need to manage the references you find