

## Accessing the research content: Sources and procedures

**Demonstration of an approach to analysing  
research biographies**

**Research question:**

**How does the ERC funding affects career patterns  
and the opportunity to start new research lines?**



# Astronomer Amina Helmi

## Step 1: Collect Internet Information about the Grantee

### Homepage information on the research content we found :

#### Direct information:

- \* Research interests and goals
- \* Subject of PhD thesis
- \* Recent projects

#### Indirect information:

- \* Prizes and awards → laudatios, news items
- \* Funding information → short project descriptions
- \* Biography (Job positions) → needed for Web of Science searches

## Astronomer Amina Helmi

### Step 2: Construct a biographical research trail

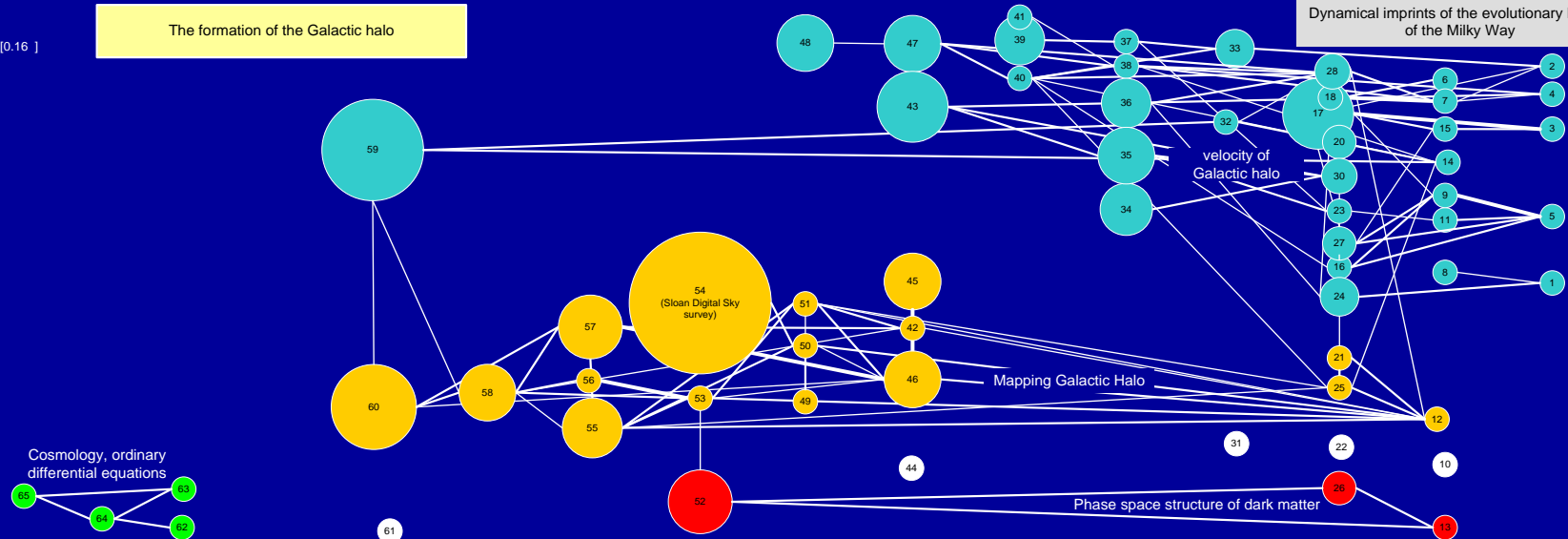
- Search for publications in the Web of Science

- Download SCI publications

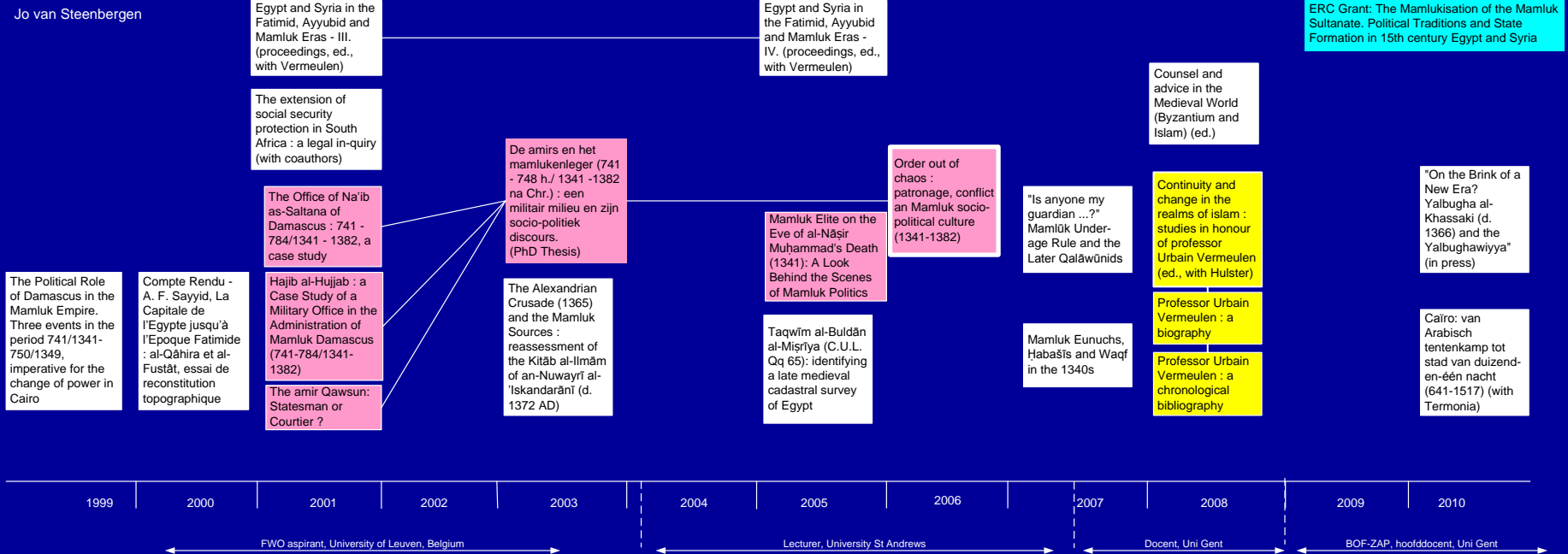
- Construct a visual representation of research trails:  
search for topical clusters (via bibliographic coupling: connections between the references)

The formation of the Galactic halo

Dynamical imprints of the evolutionary history of the Milky Way



# Historian Jo van Steenberg



## Further information

**Natural Sciences**

**Social Sciences and Humanities**

**grant proposals**

**PhD thesis (intro, conclusions ..)**

**As a last resort: journal  
articles**

**books (intro, conclusions),  
articles**

**book reviews about the  
interviewee's books**

**Wikipedia: information about the research area,  
explanations of unknown terms**

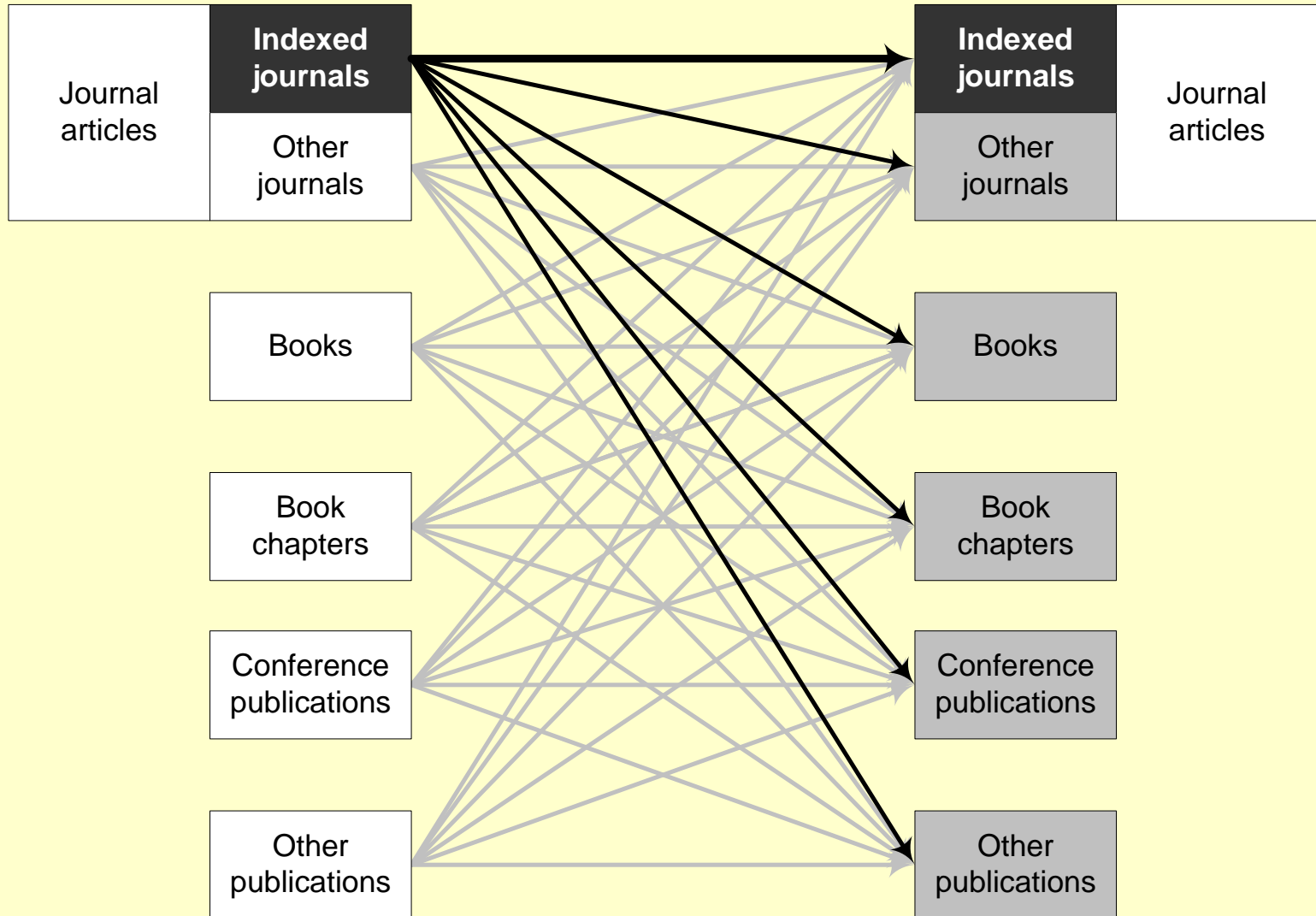
# Introduction to the Web of Science

- Is a publication database that includes references; journal articles are linked to each other via references

<b>Author(s)</b>	<input type="checkbox"/> <b>Title</b>	<input type="checkbox"/> <b>Source</b>	<input type="checkbox"/> language
abstract*	<input type="checkbox"/> cited references*	<input type="checkbox"/> document type	<input type="checkbox"/> subject category
addresses	<input type="checkbox"/> times cited	<input type="checkbox"/> keywords	<input type="checkbox"/> publisher information
<b>ISSN</b>	<input type="checkbox"/> cited reference count	<input type="checkbox"/> source abbrev.	<input type="checkbox"/> page count
IDS number	<input type="checkbox"/> funding information		

*lecting these items will increase the processing time.*

# Coverage: articles from 'most important' journals of all fields





<b>Internal coverage percentage</b>			
<b>80-100%</b>	<b>60-80%</b>	<b>40-60%</b>	<b>&lt;40%</b>
<ul style="list-style-type: none"> <li>•Molecular biology &amp; biochemistry</li> <li>•Biological Sciences - humans</li> <li>•Chemistry</li> <li>•Clinical medicine</li> <li>•Physics &amp; astronomy</li> </ul>	<ul style="list-style-type: none"> <li>•Applied physics &amp; chemistry</li> <li>•Biological science – animals &amp; plants</li> <li>•Psychology &amp; psychiatry</li> <li>•Geosciences</li> <li>•Social sciences in medicine</li> </ul>	<ul style="list-style-type: none"> <li>•Mathematics</li> <li>•Economics</li> <li>•Engineering</li> </ul>	<ul style="list-style-type: none"> <li>• Other soc sciences</li> <li>• Humanities &amp; arts</li> </ul>

# Problems: 1. Homonyms

ISI Web of Knowledge

All Databases Select a Database

Search Cited Reference Search

Web of Science®

**Results** Author=(Wang L)  
Timespan=All Years. Databases=SCI-EXPANDED, SSCI, A&HCI.

Results: **14.105**

Page 1 of 1.411 Go

## Refine Results

Search within results for

Search

▼ **Subject Areas** Refine

CHEMISTRY, MULTIDISCIPLINARY (1,047)

BIOCHEMISTRY & MOLECULAR BIOLOGY (990)

MATERIALS SCIENCE, MULTIDISCIPLINARY (975)

PHYSICS, APPLIED (772)

CHEMISTRY, PHYSICAL (640)

[more options / values...](#)

▼ **Document Types** Refine

ARTICLE (10,842)

Print E-mail Add to Marked List Save to EndNote® Web Save to EndNote®, RefMan, P

1. Title: [Reverse extraction of early-age hydration kinetic equation from observed data](#)  
Author(s): Wang L, Yang B, Zhao XY, et al.  
Source: **SCIENCE CHINA-TECHNOLOGICAL SCIENCES** Volume: **53** Issue: **6** Pages: **15**  
Times Cited: **0**  
[S·F·X](#) [Full Text](#)
2. Title: [Development of a tundra-specific snow water equivalent retrieval algorithm for satellite data](#)  
Author(s): Derksen C, Toose P, Rees A, et al.  
Source: **REMOTE SENSING OF ENVIRONMENT** Volume: **114** Issue: **8** Pages: **1699-170**  
Times Cited: **0**  
[S·F·X](#) [Full Text](#)
3. Title: [Retrieval of subpixel Tamarix canopy cover from Landsat data along the Forgoth](#)  
Author(s): Silvan-Cardenas JL, Wang L  
Source: **REMOTE SENSING OF ENVIRONMENT** Volume: **114** Issue: **8** Pages: **1777-17**

Hide Refine

# Problems: 2. Synonyms

- 1. Title: [DOMINANT FORMS OF ECONOMIC-ORGANIZATION IN MARKET ECONOMIES](#)  
Author(s): WHITLEY R  
Source: **ORGANIZATION STUDIES** Volume: **15** Issue: **2** Pages: **153-182** Published: **1994**  
Times Cited: **52**  

- 2. Title: [JAPANESE MANAGEMENT STRUCTURES, 1920-80 - SUZUKI Y](#)  
Author(s): WHITLEY RD  
Source: **JOURNAL OF MANAGEMENT STUDIES** Volume: **29** Issue: **6** Pages: **813-815** Published: **NOV 1992**  
Times Cited: **0**  

- 3. Title: [BEYOND THE MARKETPLACE - RETHINKING ECONOMY AND SOCIETY - FRIEDLAND,R,ROBERTSON,AF](#)  
Author(s): WHITLEY R  
Source: **JOURNAL OF MANAGEMENT STUDIES** Volume: **29** Issue: **4** Pages: **548-550** Published: **JUL 1992**  
Times Cited: **0**  

- 4. Title: [THE SPIRIT OF CHINESE CAPITALISM - REDDING,SG](#)  
Author(s): WHITLEY R  
Source: **JOURNAL OF MANAGEMENT STUDIES** Volume: **29** Issue: **4** Pages: **550-554** Published: **JUL 1992**  
Times Cited: **0**  

- 5. Title: [THE SOCIAL CONSTRUCTION OF BUSINESS SYSTEMS IN EAST-ASIA](#)  
Author(s): WHITLEY RD  
Source: **ORGANIZATION STUDIES** Volume: **12** Issue: **1** Pages: **1-28** Published: **1991**  
Times Cited: **45**  

- 6. Title: [EASTERN ASIAN ENTERPRISE STRUCTURES AND THE COMPARATIVE-ANALYSIS OF FORMS OF BUSINESS ORGANIZATION](#)  
Author(s): WHITLEY RD  
Source: **ORGANIZATION STUDIES** Volume: **11** Issue: **1** Pages: **47-74** Published: **1990**  
Times Cited: **57**  


# Problems: 3. Errors

- wrong or missing address information
- wrong citations