VISUALISATION OF WARSAW UNIVERSITY OF TECHNOLOGY MAIN LIBRARY RESOURCES BASED ON UDC

Assumption:
If the set of keywords describing one subject shares the keywords of another subject, we can assume that these subjects are complementary..

Aim:
Illustrating the content of the library catalogue using the UDC symbols and keywords. Showing links and connections between knowledge classes.

Method:
Using the subject catalogue to find the set of keywords describing each UDC knowledge class.
Identifying keywords that are common for specific knowledge classes, for each pair of UDC classes.
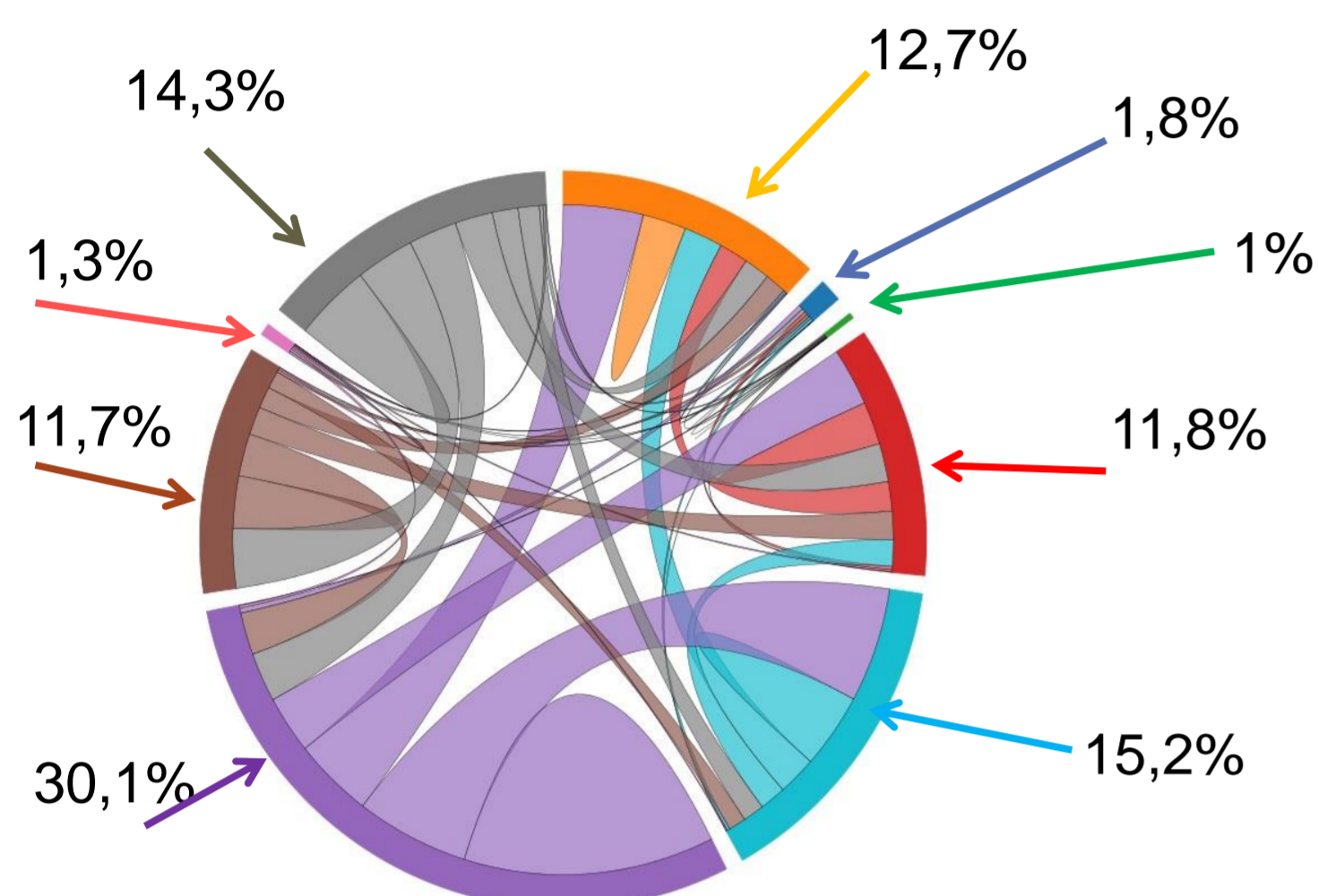Visualising the search results.

- 0 SCIENCE AND KNOWLEDGE
- 1 PHILOSOPHY. PSYCHOLOGY
- 2 RELIGION. THEOLOGY
- 3 SOCIAL SCIENCES
- 5 MATHEMATICS. NATURAL SCIENCES
- 6 APPLIED SCIENCES. MEDICINE. TECHNOLOGY
- 7 THE ARTS. RECREATION. ENTERTAINMENT. SPORT
- 8 LANGUAGE. LINGUISTICS. LITERATURE
- 9 GEOGRAPHY. BIOGRAPHY. HISTORY

Fig. 2. Links and connections between knowledge classes

Fig. 1. Percentage share of main knowledge classes in Library resources

Set of keywords describing **6**   Set of keywords describing **5**

UDC categories

5. Mathematics. Natural Sciences.

6. Applied science. Medicine. Technology.

- 0,8% Environmental science.
- 4,5% Mathematics.
- 0.6% Astronomy. Geodesy.
- 5,3% Physics
- 2,9% Chemistry.
- 1,1% Earth sciences. Geological sciences.
- 0,1% Palaeontology
- 0,8% Biological sciences
- 0,1% Botany
- 0,1% Zoology
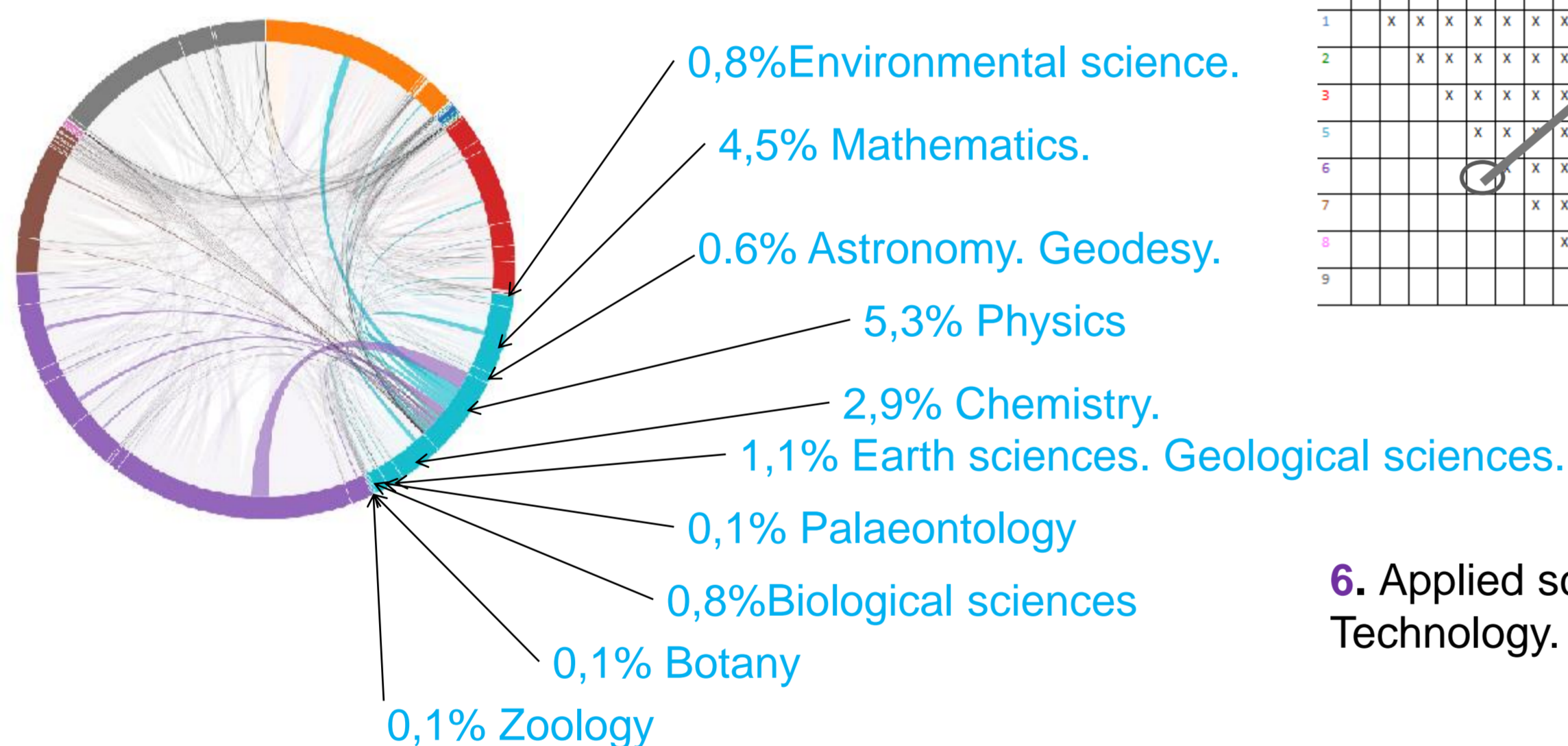
Fig. 3. Percentage of each knowledge class in UDC class 5 and their connections with other classes.

Outcome:
The greater the common part of the sets, the more common keywords used to describe the two classes and the stronger the link between the knowledge classes.

Plans for development:
Creating a list of publications related to the area of relations between knowledge classes.

Conclusions:
The analysis resulted in creating circles and a network of links.
Visualising the nine UDC knowledge classes, we can see what part of the Library resources a specific class forms.
At the same time, we can see its strongest links with other knowledge classes.
Thanks to visualisation, we can easily monitor the growth of scientific literature related to specific classes of knowledge.
The project exceeds the traditional way of using the catalogue.

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