Scientific literature uses in Geography: indexing and "overlap" in four bibliographic tools

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Aim

Evaluate the interest for geographers to use Google Scholar (GS) over the commercial databases Web of Science (WoS), Scopus (multidisciplinary databases), and GeoRef (specialized in geosciences).

Methods

Searches in the four bibliographic tools (BT) of a sample consisting **720 citations** of three dissertations (Belleflamme, 2015; Dubois, 2014; Trotta, 2014) presented in the ULiège (Belgium) Department of Geography during the 2014 - 2015 academic year, respectively in **Climatology, Tourism** and **Geomatics**.

Results

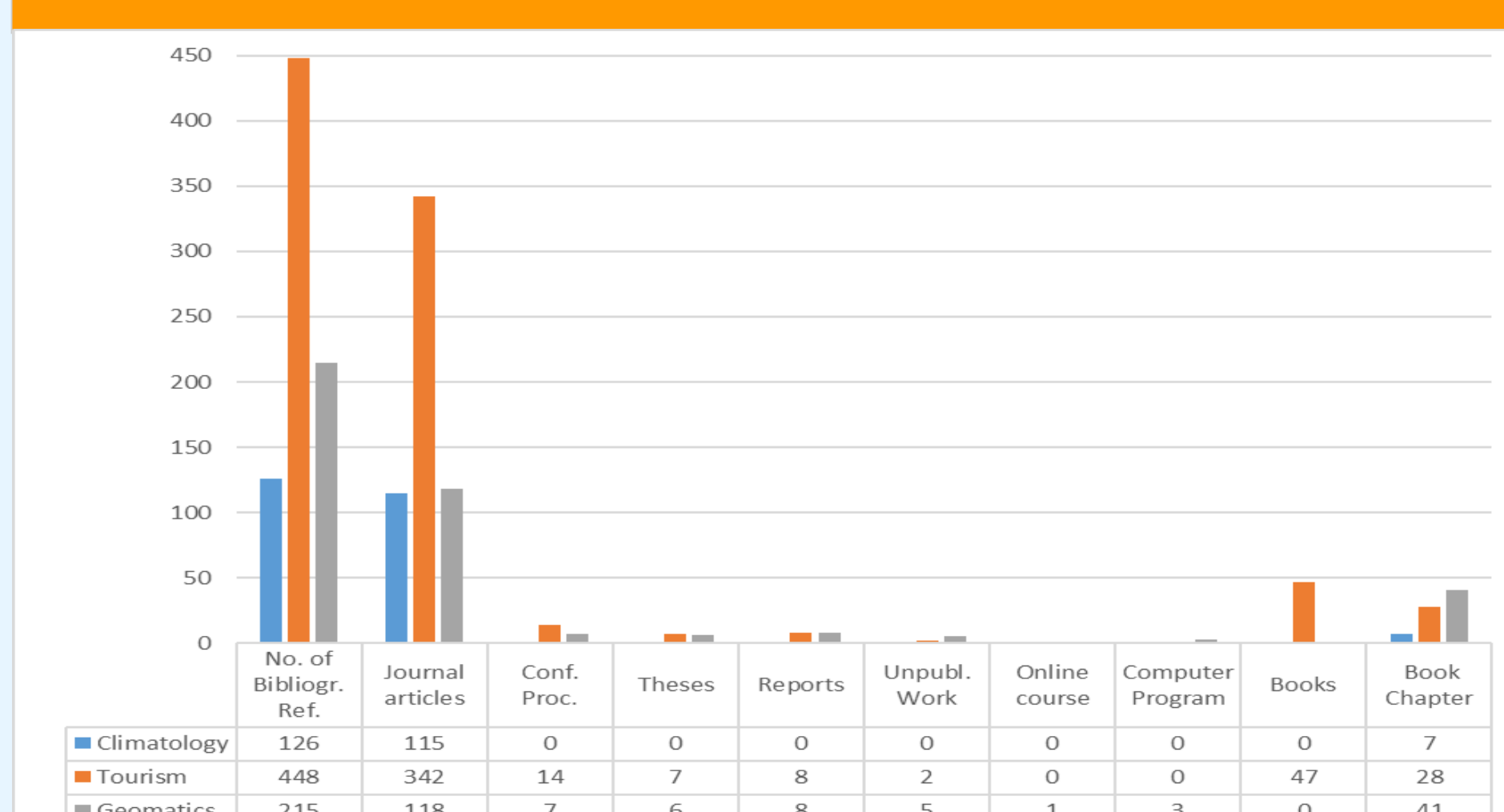### Figure 1. Document types cited in the three dissertations

	No. of Bibliogr. Ref.	Journal articles	Conf. Proc.	Theses	Reports	Unpubl. Work	Online course	Computer Program	Books	Book Chapter
Climatology	126	115	0	0	0	0	0	0	0	7
Tourism	448	342	14	7	8	2	0	0	47	28
Geomatics	215	118	7	6	8	5	1	3	0	41

Figure 2. Bibliographic references by sub-discipline and % indexed in BT

(Climatology: 100%, 90%, 89%, 13%; Tourism: 84.5%, 58%, 58%, 46%, 0%; Geomatics: 98%, 44%, 43%, 0.4%)

Legend: Total of Bibliogr. Ref. — GS — Scopus — WoS — GeoRef
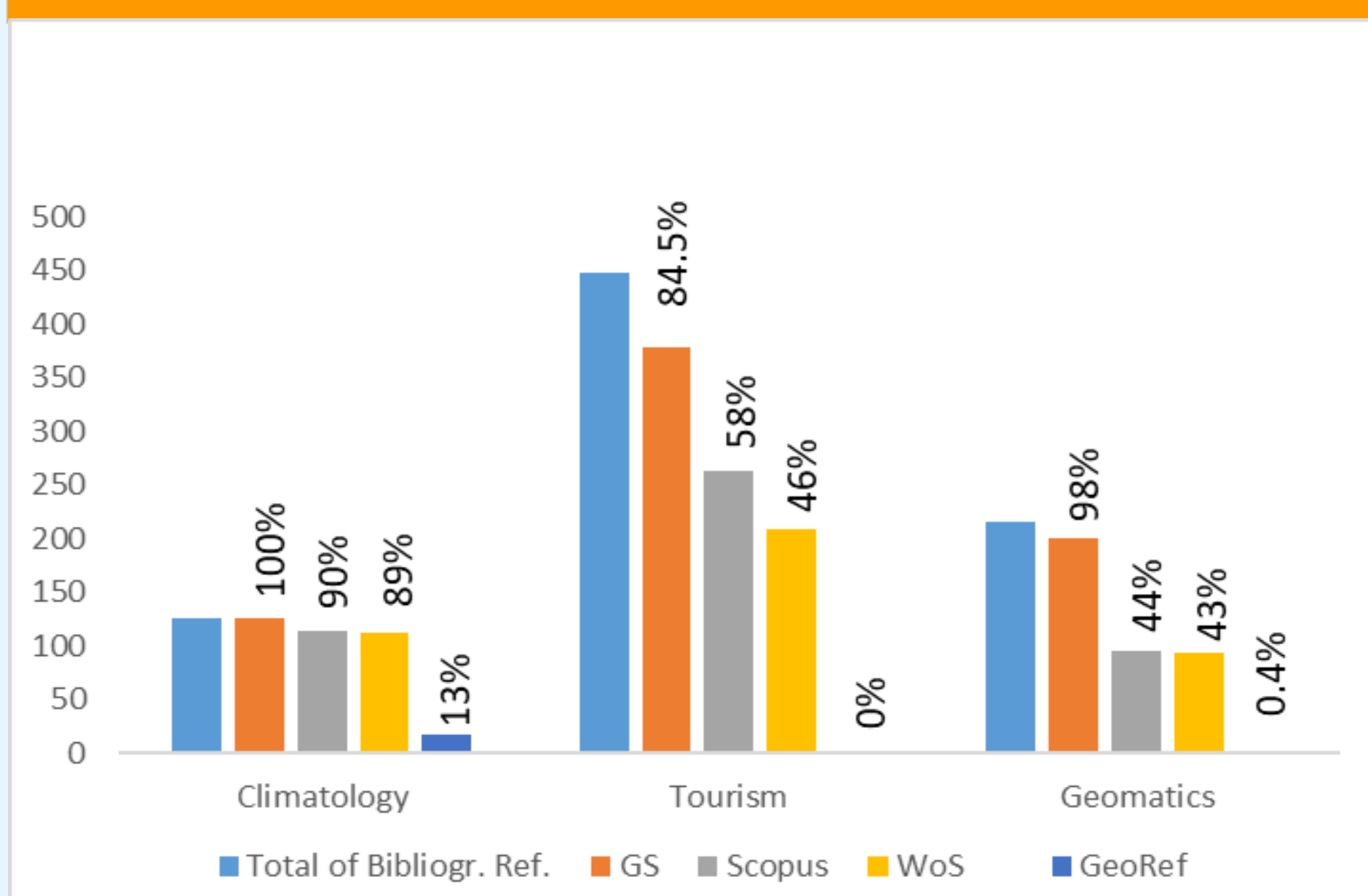
Figure 3. Journal articles by sub-duscipline and % indexed in BT

(Climatology: 100%, 96%, 96%, 13%; Tourism: 98%, 75%, 59%, 0%; Geomatics: 100%, 79%, 71%, 0%)

Legend: Total Journal articles — GS — Scopus — WoS — GeoRef
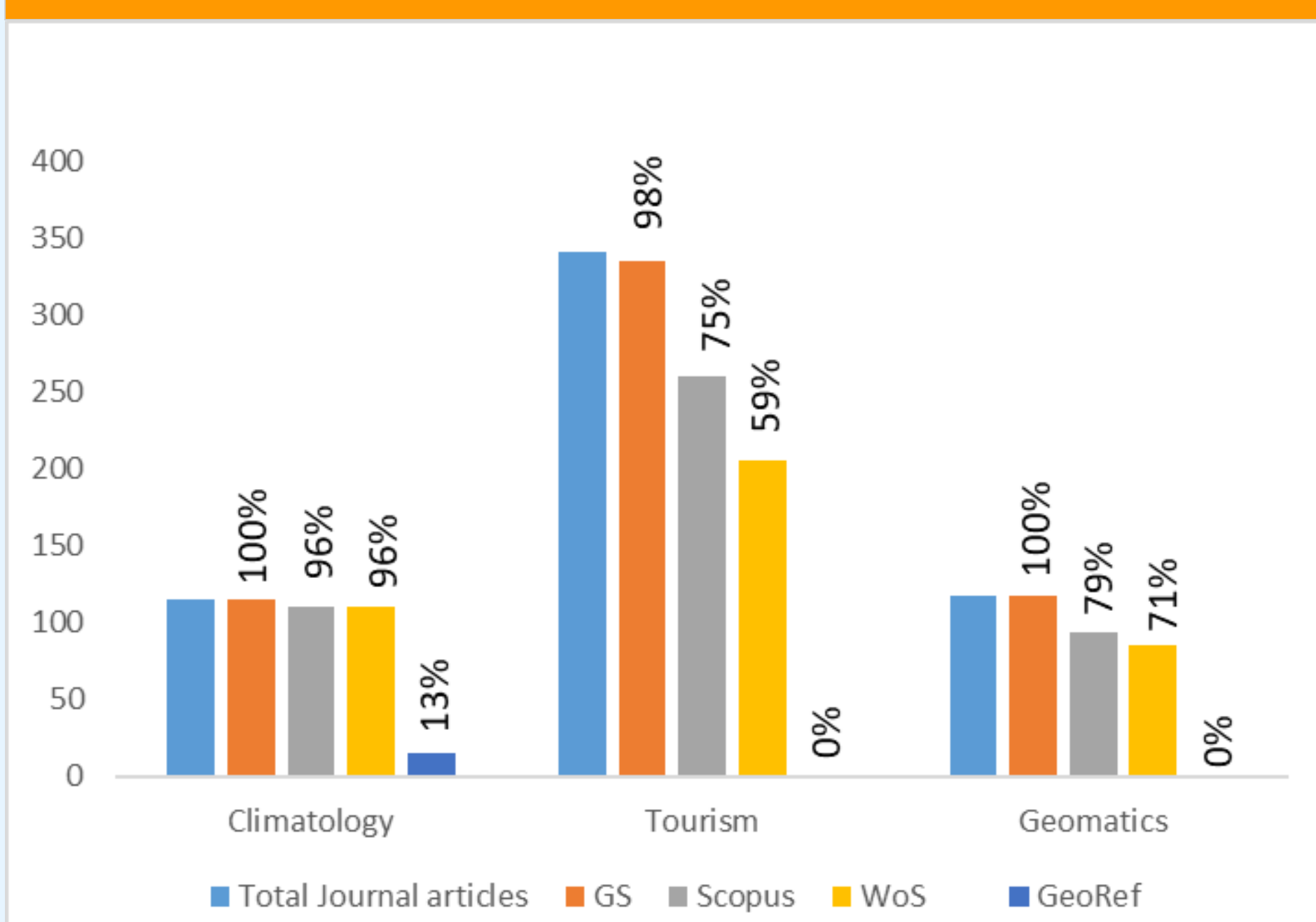
"Overlap" and Venn Diagrams

Figure 2. Bibliographic tools overlap for the dissertation in Climatology

(Venn diagram values: 4, 110, 15, 2, 2, 10)

Legend:
- GS
- WoS∩Scopus∩GS
- WoS∩Scopus∩GeoRef∩GS
- Scopus∩GS
- WoS∩GS
- GeoRef∩GS
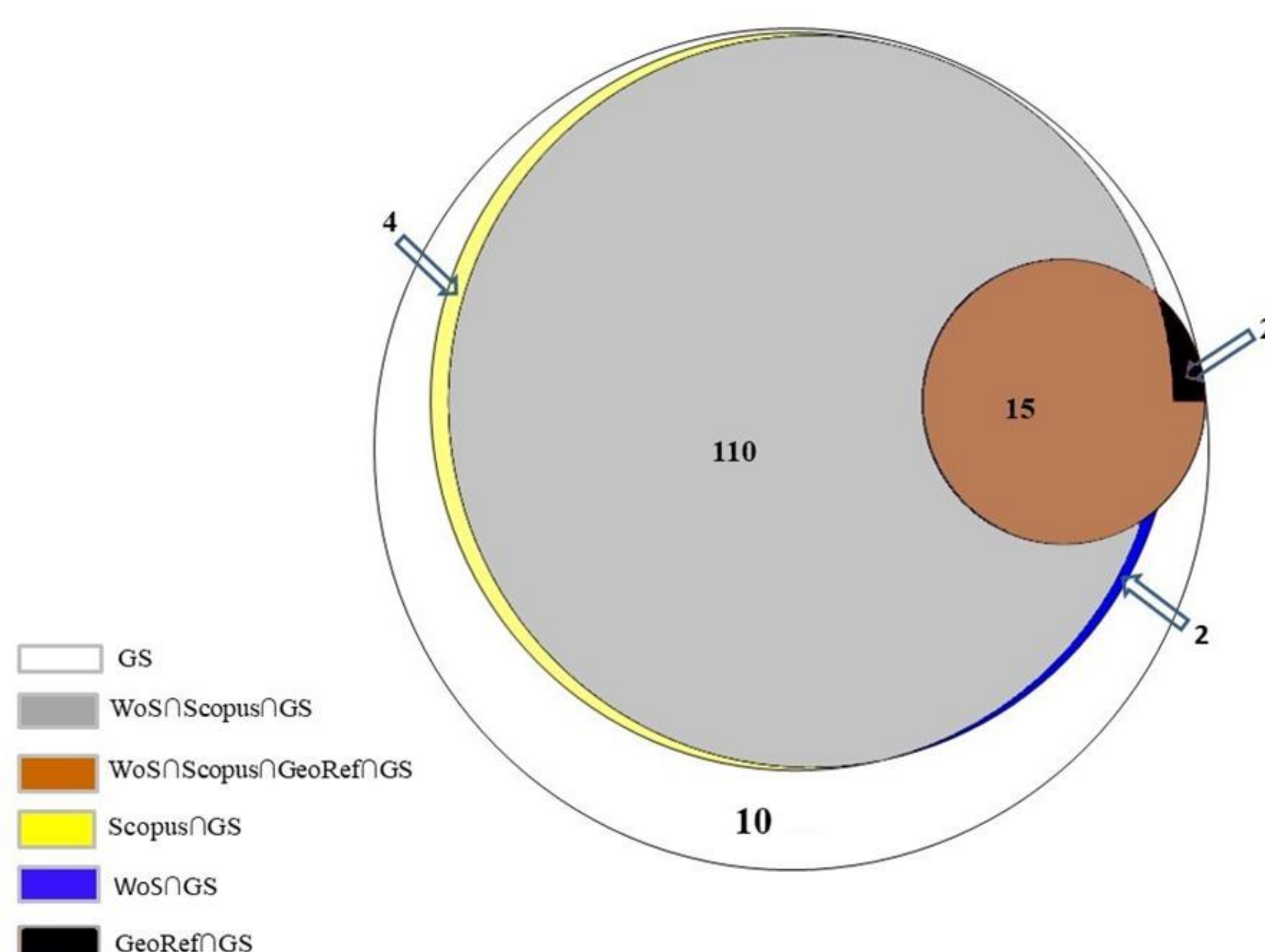
All the 126 references of the dissertation in Climatology are indexed by GS

-110 references are common to **WoS, Scopus and GS**
- **GeoRef,** retrieves only 17 references for this bibliography

Figure 3. Bibliographic tools overlap for the dissertation in Tourism

(Venn diagram values: 111, 62, 198, 1, 2, 1, 7)

Legend:
- WoS∩Scopus∩GS
- Scopus∩GS
- WoS∩Scopus
- WoS∩GS
- Uniq.GS
- Uniq. Scopus
- Uniq. WoS

GS retrieves 379 of the 448 references in Tourism which is the largest number of references among the bibliographic tools analyzed

- 198 references are indexed by all the tools, excluding GeoRef which does not index any reference for this bibliography
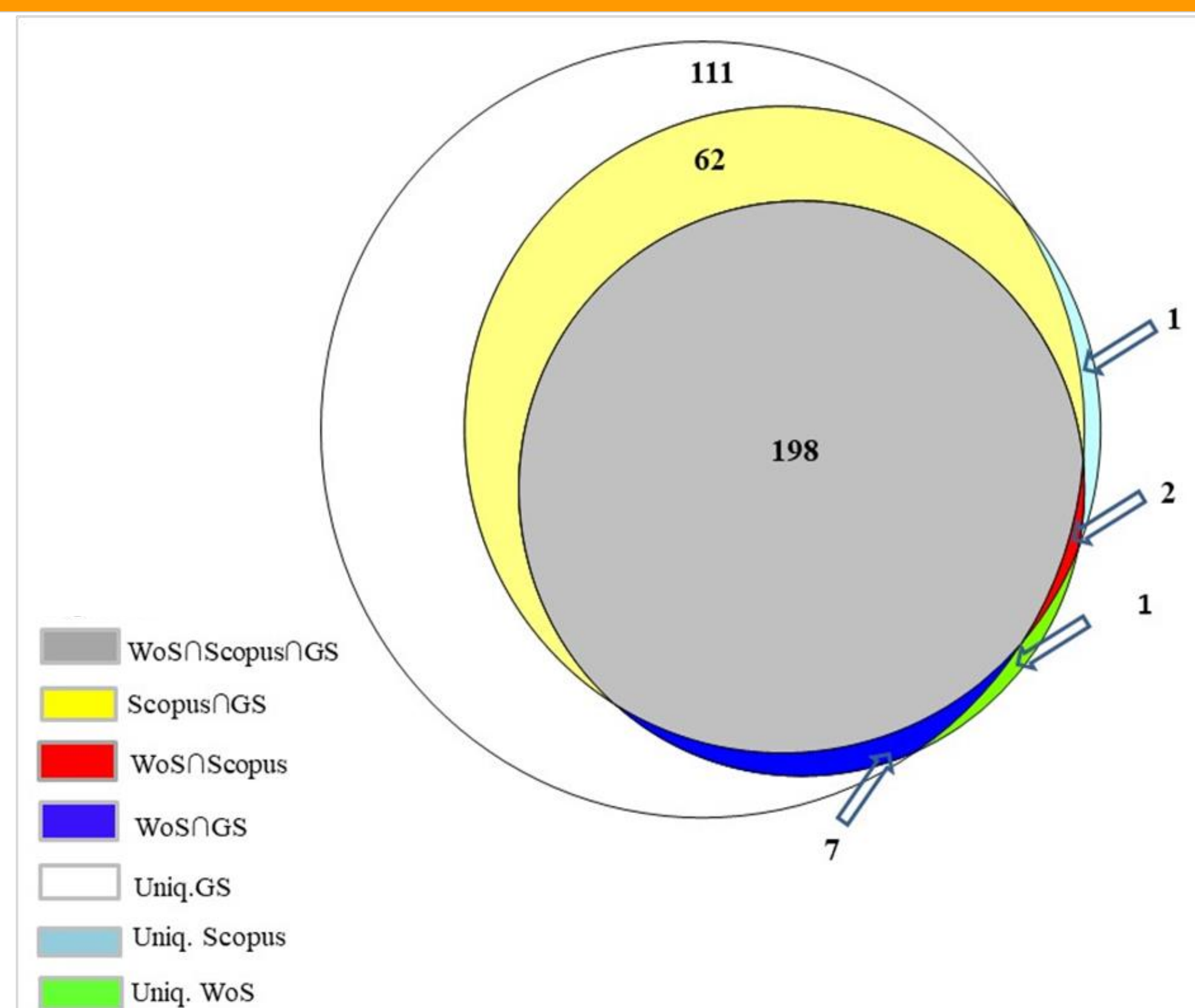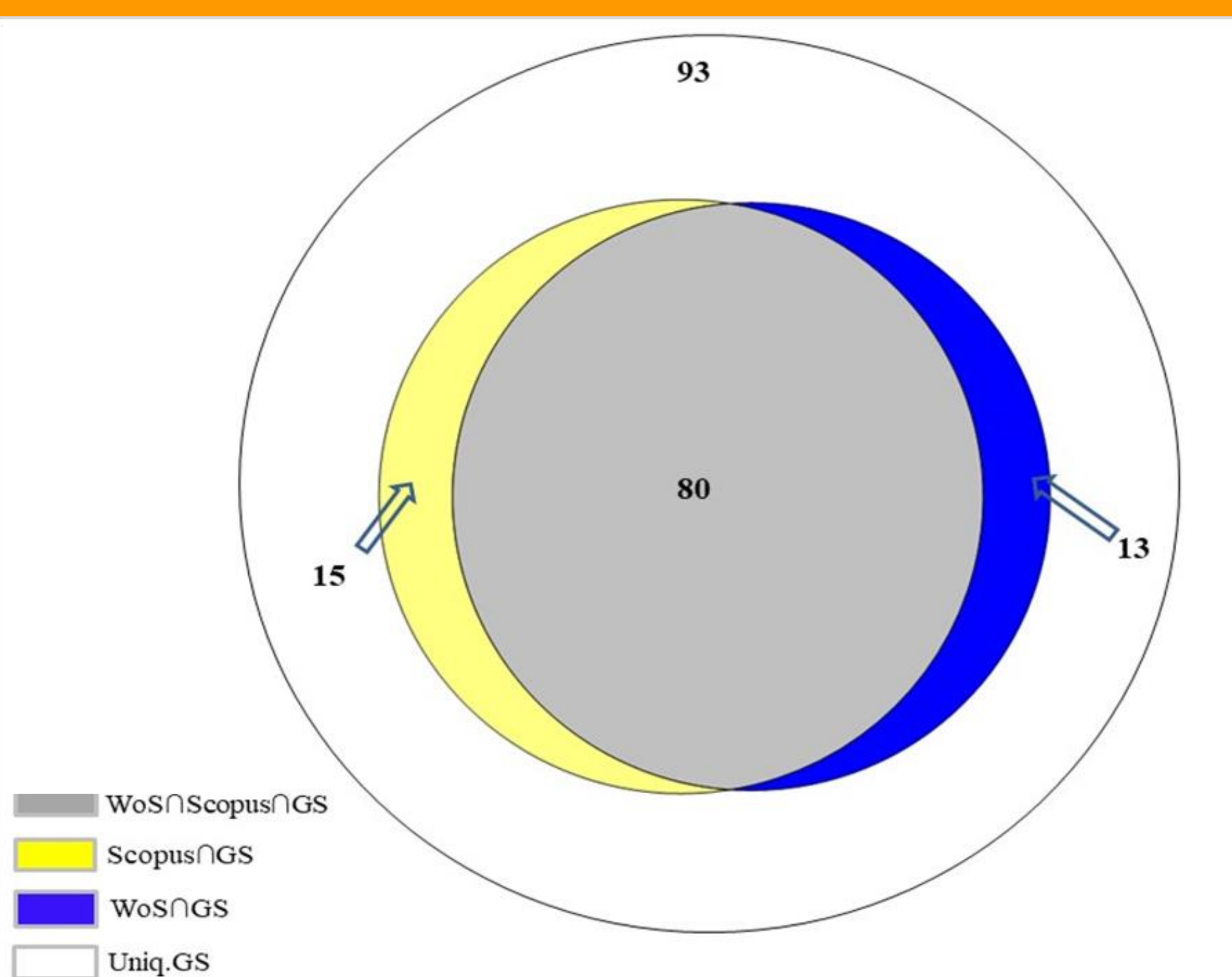
Figure 4. Bibliographic tools overlap for the dissertation in Geomatics

(Venn diagram values: 93, 15, 80, 13)

Legend:
- WoS∩Scopus∩GS
- Scopus∩GS
- WoS∩GS
- Uniq.GS

From a total of 215 references, GS retrieves 201 references
- 80 references are common to the three bibliographic tools, GS, Scopus and WoS, while GeoRef indexes only one reference (not represented on the diagram)

It turns out that for the three bibliographies, it is always GS that indexes an additional number of "unique" references, and recovers almost 100 % of the other bibliographic databases.

Findings and Conclusions

- In terms of indexed references, GS is the most comprehensive bibliographic tool, having found the majority of references searched with values close to 100 % for the three bibliographies, all document types combined

- Considering the results and analyzes above, it appears that GS is a bibliographic tool that behaves very well when it comes to recover references indexed by traditional bibliographic databases

- Our results indicate a much higher potential for GS to find "unique" bibliographic references such as journal articles but also grey literature, books and book chapters, not indexed by commercial databases.

- More extensive analysis are needed to confirm our findings.

Belleflamme, A., 2015, *Detection of past and future atmospheric circulation changes over the North Atlantic region with the help of an automatic circulation type classification*
Dubois, C., 2014, *Quels agritourismes pour les campagnes périurbaines ? Les cas de la Wallonie et du Grand-Duché de Luxembourg*
Trotta, M., 2014, *Modelling serial offenders' spatial behaviours: new assumptions for geographic profiling*