## M-approximative systems: some recent results and examples related to fuzzy topology and rough sets

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The concept of an M-approximative system where M is a complete lattice was introduced in our paper [1]. In case M is a two-point lattice M-approximative system is essentially equivalent to the concept of an approximative system first defined in our talk at FSTA2008 [2] and later studied in [3]. In this talk, after recalling the basic concepts related to M-approximative systems, we discuss some recent results about the category of M-approximative systems and give examples of M-approximative systems related to various categories of Fuzzy Topology and to categories of rough sets.

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## References

- A.Šostak: On M-approximative operators and M-approximative systems, IFSA Congress of the International Fuzzy Systems Association and Lisbon, Portugal, July, 20-24<sup>th</sup> 2009, pp. 1606-1611.
- [2] A.Šostak: Approximative fuzzy systems and approximative fuzzy spaces, In: 9<sup>th</sup> International Conference on Fuzzy Set Theory and Applications: FSTA2008. Abstracts, p. 118.
- [3] A.Šostak: On approximative systems and related structures, 1<sup>st</sup> Czech-Latvian Seminar on Advanced Methods in Soft Computing, November 19-21, 2008, Trojanovice, Czech Republic. Abstracts, pp 7-8.

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