

List of publications

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Three most important publications

In addition to patents, I consider the following three publications to be the most impactful:

1. Bazan, J. G., Nguyen, H. S., Nguyen, S. H., Synak, P., and Wróblewski, J. “Rough Set Algorithms in Classification Problems”. In: *Rough Set Methods and Applications: New Developments in Knowledge Discovery in Information Systems*. Ed. by L. Polkowski, T. Y. Lin, and S. Tsumoto. Vol. 56. Studies in Fuzziness and Soft Computing. Heidelberg, Germany: Springer-Verlag/Physica-Verlag, 2000. Chap. 2, pp. 49–88
2. Bazan, J. G., Skowron, A., and Synak, P. “Dynamic Reducts as a Tool for Extracting Laws from Decision Tables”. In: *8th International Symposium on Methodologies for Intelligent Systems, ISMIS, Charlotte, North Carolina, USA, October 16-19, 1994, Proceedings*. Vol. 869. Lecture Notes in Artificial Intelligence. Springer-Verlag, 1994, pp. 346–355
3. Skowron, A., Świniarski, R. W., and Synak, P. “Approximation Spaces and Information Granulation”. In: *Transactions on Rough Sets III*. LNCS 3400 (2005), pp. 175–189

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Master and PhD thesis

- [1] Synak, P. “Temporal Aspects of Data Analysis: A Rough Set Approach”. In Polish. PhD thesis. Warsaw, Poland: The Institute of Computer Science of the Polish Academy of Sciences, 2003.
- [2] Synak, P. “Methods of Approximate Reasoning in Searching for Rough Dependencies”. In Polish. MA thesis. Warsaw, Poland: Warsaw University, 1996.

Patents

- [3] Ślęzak, D., Glick, R., Betliński, P., Synak, P., Wróblewski, J., Chądryńska-Krasowska, A., Borkowski, J., Wojna, A., and Holland, J. A. “Systems and methods for intelligent capture and fast transformations of granulated data summaries in database engines”. Patent US 11301467 B2 (USA). Apr. 12, 2022.

- [4] Toppin, G., Borkowski, J., Ślęzak, D., Shi, S., Synak, P., Wróblewski, J., Wongkee, T. J., and Charalabopoulos, G. “System and method for granular scalability in analytical data processing”. Patent application US 2015/0088807 A1 (USA). Mar. 26, 2015.
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Articles in journals

- [7] Ślęzak, D., Glick, R., Betliński, P., and Synak, P. “A new approximate query engine based on intelligent capture and fast transformations of granulated data summaries”. In: *J. Intell. Inf. Syst.* 50.2 (2018), pp. 385–414.
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