Sublocales as parts

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Mereology is the theory of parthood relations: the theory of the relations of part to whole and of part to part within a whole. It can be traced back to the early days of philosophy, but it was Stanisław Leśniewski [1, 2] who gave mereology an exact formulation with the purpose of providing a nominalistically valid alternative to set theory as a foundation for mathematics. Although his original program showed to be too weak to allow for a reconstruction of mathematics, nowadays mereology has become a chapter of central interest for modern ontologists and metaphysicians. The aim of this is talk study the relation between the theory of sublocales in pointfree topology with several mereological formalizations and principles proposed in the literature.

REFERENCES

[1] Leśniewski, S., 1916, *Podstawy ogólnej teoryi mnogoci.* I, Moskow: Prace Polskiego Koła Naukowego w Moskwie, Sekcya matematyczno-przyrodnicza; Eng. trans. by D. I. Barnett: *Foundations of the General Theory of Sets. I*, in S. Leśniewski, Collected Works (ed. by S. J. Surma et al.), Dordrecht: Kluwer, 1992, Vol. 1, pp. 129–173.

[2] Leśniewski, S., 1927–1931, *O podstawach matematyki*, Przegląd Filozoficzny, 30: 164206; 31: 261291; 32: 60101; 33: 77105; 34: 142170; Eng. trans. by D. I. Barnett: *On the Foundations of Mathematics*, in S. Leśniewski, Collected Works (ed. by S. J. Surma et al.), Dordrecht: Kluwer, 1992, Vol. 1, pp. 174–382.