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Seminar for “The Mereology of Potentiality” group

*How to Build Things from Atoms*

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*Abstract*

Mereological atomism is the thesis that everything is ultimately *composed* of atomic parts, i.e., parts lacking proper parts. Typically, this thesis is characterized by an axiom stating, more simply, that *everything has atomic parts*. The present paper argues that the success of this standard characterization crucially depends both on how the notion of composition is related to the notion of sum and on how the notion of sum is initially defined. In particular, we put forward a novel definition of mereological sum such that:

- (i) is not equivalent to extant definitions in the literature, provided no strong decomposition principle is assumed;
- (ii) can be used to claim that the standard characterization of atomism fails in that having atomic parts is not sufficient to be the sum of atoms; and
- (iii) delivers a purely mereological distinction between structured and unstructured wholes.