1163-03-1464 **Joachim Mueller-Theys*** (mueller-theys@gmx.de). *Named Model Theory.*
Elementarily equivalent structures need not be isomorphic. We found out that the situation changes when structures are considered the objects of which are all *named* by closed terms. Then even equivalence at atomic sentences suffices for isomorphy, and our proof moreover shows that a named structure is homomorphic to another structure if all closed atomic formulæ holding in the former hold in the latter. As a consequence, arithmetical structures are isomorphic to the standard model already if they are likewise named and have the same atomic theory.

Furthermore, (the theory of) any named structure is named axiomatized by its basic theory, comprising the true atomic and negated-atomic sentences only.

If there are but $n > 0$ closed terms, named structures are finite, and any sentence is named equivalent to a PL-combination of atomic sentences, whence variables and quantifiers become redundant (in the infinite case, this may be accomplished by infinitary operations). Validity for such *finitary* structures will even be decidable—unlike finite first-order validity (Trachtenbrot's theorem).

As suggested by P. Maier-Borst, the characterization theorem may be generalised. That is true for the axiomatization theorem as well. (Received September 15, 2020)