Quasivarieties of Heterogeneous Partial Algebras

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Abstract: The work of István Németi together with his collaborators Hajnal Andréka and Ildikó Sain has had a great influence on my work in particular in the late seventies and the early eighties of the 20th century. Mainly their results in [AN83], of which a preprint had already appeared in 1977, and in particular the papers [AN82] and [NSa82] formed a basis for the central part of my book [B86], in which I could show that their "Meta Birkhoff Theorem" leads to a wealth of different closure operators for the description of quasivarieties definable by special kinds of quasi-identities. It contains explicitly about 30 "simple" closure operators and in addition at least 18 usually infinite families of such operators (special forms of the "Meta Birkhoff Theorem" for homogeneous partial algebras have also been discussed in the survey articles [B92] and [B93]). Besides a review of these results and on some new results on special quasivarieties, the relative behaviour of existence varieties, primitive classes and independence classes in the case of heterogenous partial algebras (cf. [B02]) will be discussed.

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A "not yet debugged LaTeX-translation" can be found as pdf-file in the internet at
http://www.mathematik.tu-darmstadt.de/∼burmeister/

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