

**GENERALIZED O-MINIMALITY  
FOR PARTIAL ORDERS***K. Zh. Kudaibergenov*

We consider partially ordered models. We introduce the notions of a weakly (quasi-)p.o.-minimal model and a weakly (quasi-)p.o.-minimal theory. We prove that weakly quasi-p.o.-minimal theories of finite width lack the independence property, weakly p.o.-minimal directed groups are Abelian and divisible, weakly quasi-p.o.-minimal directed groups with unique roots are Abelian, and the direct product of a finite family of weakly p.o.-minimal models is a weakly p.o.-minimal model. We obtain results on existence of small extensions of models of weakly quasi-p.o.-minimal atomic theories. In particular, for such a theory of finite length, we find an upper estimate of the Hanf number for omitting a family of pure types. We also find an upper bound for the cardinalities of weakly quasi-p.o.-minimal absolutely homogeneous models of moderate width.

*Key words and phrases:* weakly p.o.-minimal model, weakly quasi-p.o.-minimal model, weakly p.o.-minimal directed group, independence property, small extension of a model, Hanf number for omitting types, absolutely homogeneous model.

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