

1127-03-299

Sergei Starchenko* (sstarche@nd.edu) and **Artem Chernikov**. *On strong Erdos-Hajnal property for definable relations.*

Let \mathcal{M} be a first order structure, $X, Y \subseteq M$ definable sets and $E \subseteq X \times Y$ a definable relation.

We say that E has *strong Erdos-Hajnal property* if there is a real number $\alpha > 0$ such that for all finite $A \subseteq X$, $B \subseteq X$ there are $A_0 \subseteq A$, $B_0 \subseteq B$ with $|A_0| \geq \alpha|A|$, $|B_0| \geq \alpha|B|$ and either $A_0 \times B_0 \subseteq E$ or $A_0 \times B_0 \cap E = \emptyset$.

In this talk we discuss strong Erdos-Hajnal property for definable relations under various Model Theoretic assumptions. (Received February 06, 2017)