1135-03-2697 **Athar Abdul-Quader*** (aabdulquader@gradcenter.cuny.edu). *Classifying Enayat models of Peano Arithmetic.*

Simpson used arithmetic forcing to show that every countable model $\mathcal{M} \models \mathsf{PA}$ has an undefinable, inductive subset $X \subseteq M$ such that the expansion $(\mathcal{M}, X)$ is pointwise definable. Enayat later showed that there are many models with the property that every expansion upon adding a predicate for an undefinable class is pointwise definable. We refer to models with this property as Enayat models. That is, a model $\mathcal{M} \models \mathsf{PA}$ is Enayat if for each undefinable class $X \subseteq M$, the expansion $(\mathcal{M}, X)$ is pointwise definable. In this talk we show that a model is Enayat if it is countable, has no proper cofinal submodels and is a conservative extension of each of its elementary cuts. (Received September 26, 2017)