

# SEMINÁRIO

## LÓGICA MATEMÁTICA

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### $\omega$ -Reflexive Theories

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#### ABSTRACT:

We study the  $\omega$ -reflexivity of theories  $T$ , i.e. the ability of a theory  $T$  to prove  $\omega\text{-con}_{\{T_0\}}$ , with  $T_0$  a finitely axiomatized sub-theory of  $T$ . We prove that, for every verifiably essentially reflexive theory  $T$  and every finitely axiomatized sub-theory  $T_0$  of  $T$ ,  $T + \text{RFN}_{\{\Sigma_2\}}(T)$  proves  $\omega\text{-con}_{\{T_0\}}$ . We develop a uniform version of  $\omega$ -consistency,  $U\omega\text{-con}_{\{T_0\}}$ , such that, for  $T$  and  $T_0$  in the previous conditions,  $T$  proves  $U\omega\text{-con}_{\{T_0\}}$ .  $n$ -consistency and theories of truth are also considered, namely  $\text{Tr}(\text{PA})$  for which we get that  $\text{Tr}(\text{PA})$  proves  $\omega\text{-con}_{\{\text{PA}\}}$ .

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