

John.

Comptari of MOD in $D(M, \lambda)$,
M a lbr hod pair.

we'll show: $\text{MOD}^{D(M, \lambda)}$ is an initial
segment of an iterate of M.

if λ is a limit of cutpoints
→ nondropping iterate.

o.w. let κ_0 be the 1st reg up to λ :
→ cut off the chain at the
stage of κ_0 .

prove: if g is M -generic on $\text{Co}(w, \eta)$,
~~and $\delta \rightarrow \eta$ is winning in M ,~~
then

$M \models g \models$ "UBH for all ~~sets~~ plus 2
(non dropping anywhere)
iterate trees of me with
with cuts $> \eta$ "

adapts the L(E) pf.:

take, in L(E), a pt. with
dy. the counterexample, i.e.

$$N \stackrel{\sim}{=} \text{Hull}^{L(E)}(\emptyset) < L(E)$$

N transiti. here $I \in N$ with

$N \neq b, c$ are two diff. branches. get

$$(*) \begin{cases} m_b^I \longrightarrow L(E) \\ m_c^I \longrightarrow L(E), \end{cases}$$

as $\sigma(I \wedge b), \sigma(I \wedge c)$ when

\rightarrow UBH for L(E)

then compare $\Phi(I \wedge b), \Phi(I \wedge c)$;

works by (*). get \lesssim as

base model N is pt. with dy. nature

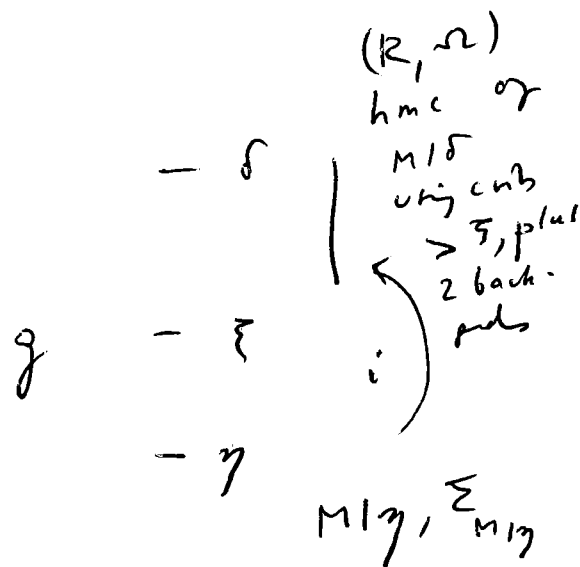
\rightarrow

• generic interpretability :

if $\delta < \lambda$ and is a wooden cardinal in M , then there is for each $\beta < \delta$ a term $\tau \in M$ s.t.
 f.a. $g \in \text{Con}(w, \beta)$ - gen ,

$$\tau^g = \sum_{M \langle \gamma, \emptyset \rangle} \cap M[g]$$

(same proof as in grigor)



• for any $\gamma < \lambda$, there is a term τ s.t. for all g in $\text{Con}(w, \gamma)$,

$$\tau^g = \sum_{M \langle \gamma, \emptyset \rangle} \cap \mathbb{R}_g^*$$

So each $\Sigma_{M \langle \eta, 0 \rangle} \in \text{Hom}_g^*$

they are \leq_w cofinal in Hom_g^* :

Let $T, u \in M[g]$ where u is in A is $\in \text{Hom}_g^*$. then this set A can be

coupled in $M[g]/\delta$, for condition

δ is large enough. can couple A

by genericity iteratively.

assume λ is a limit of endpoints in M .

Let $M_\infty = \text{dir lim. of all iterates of}$

M/λ via trees $I \in M/\lambda$

(or ~~is~~, coded by a real in \mathbb{R}_g^* , gives some limit).

def. $M_\infty = \text{HOD} / \theta^{D(M, \lambda)}$

pf. :: ~~the~~

" \subset ": let $\mathcal{F} = \{ (P, \Sigma) :$

(P, Σ) is a lbr hod pair,
 Σ fullness pres. $\}$

this is a direct limit system under comparisons.

$\forall (P, \Sigma) \in \mathcal{F}$ there is $\gamma < \lambda$ for
 some iterate $(R, \Phi) \geq (M/\gamma, \Sigma_{M/\gamma})$

s. $(P, \Sigma) \leq^{\bar{F}} (R, \Phi)$.

$M_\infty^{\bar{F}} = M_\infty \subset \text{HOD} / \theta$.

" \supset " \hookrightarrow $A \in o(M_\infty (M/\gamma, \Sigma_{M/\gamma})) \trianglelefteq M_\infty$,
 $A \in \text{HOD}$. can read off A here

gem can :

$$\theta^{D(M, \lambda)} \approx \pi_{M, \infty}(\lambda), \text{ where}$$

$\lambda =$ the least sby up to λ .