Zvonko

$(X,d)$ effectively compact

$\Downarrow$ ?

$(\mathrm{Iso}(X,d), d_\infty)$ has (strong) comp. type

Philip

$\rho \in \mathbb{N}^{\mathbb{N}}$ is a

name for $x > 0$

if $\sum_{k=0}^{\infty} 2^{-\rho(k)} = x$

if $\rho$ tends to infinity, then

$u_\rho(n) := |\{k \in \mathbb{N} \mid \rho(k) = n\}|$

$\rho_x := \inf\{\limsup_{n\to\infty} \sqrt[n]{u_\rho(n)} \mid \rho$ is computable name for $x\}$

...

Vasco

Prop. $f :\subseteq X \to Y$ on admissibly rep. $X, Y$

Then

$$f \le_W id \Rightarrow \hat{f} \le_c id \Rightarrow f \le_W^{*} id$$

$f$ comp. $\qquad\qquad\qquad\qquad$ $f$ cont.

Question? $\Leftarrow$ ?

Prop $f : X \to Y$ add. $X$ comp. metric

$$f \le_W id \Rightarrow \hat{f} \le_c id \Rightarrow f \le_W^{0'} id$$

Pete

Is there a structure $(X, \dots)$ that is effectively categorical w.r.t. representations, but its substructure $(X^c, \dots)$ of computable elements is not effectively categorical w.r.t. numberings?

Conjecture: yes.

EMMANUEL

1985 $X$ second contable.

Start with $\beta : \mathbb{N} \to \mathcal{B}$
basis for $X$

$\rho : \subseteq \mathbb{N}^{\mathbb{N}} \to X$

$\rho((u_n)) = x \iff \{u_n, n \in \mathbb{N}\}$
$= \{n, x \in \beta(n)\}$

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$\overset{X}{\circ} \quad \times 1$

$V : n \mapsto 0$ if $n \in Tot$
$n \mapsto 1$ if $n \notin Tot$

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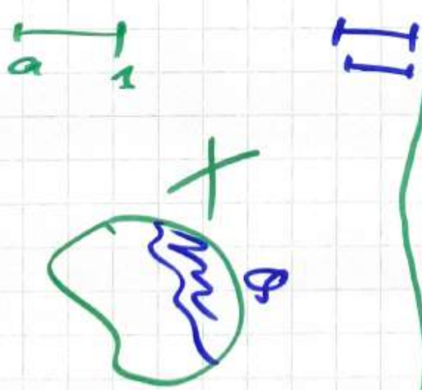
Is there $X$ 2nd contable such that

- Every Weihrauch Standard RPz makes it not computably separable
- Some other RPz makes it so.

Djamel

$\exists$? $X$ compact, metrizable,

such that: $\exists\, Y \subsetneq X$, $Y$ homeomorphic to $X$, $\dim(X) < \infty$, and $X$ has strong computable type




*if* $X$ has SCT *then* $\exists\, \varepsilon > 0$ s.t. every $f: X \to X$ which is $\varepsilon$-close to id is surjective.

other direction?

Mathieu