

## On rigidity and weak covering for HOD

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I'll discuss two results concerning Gödel's universe HOD of hereditarily ordinal definable sets, the first supporting the view that HOD is a close approximation to the universe  $V$  of all sets and the second supporting the opposite view. In [2] it was shown that  $V$  is generic over  $(\text{HOD}, S)$  where  $S$  is the  $V$ -definable *stability predicate*. Our first result extends this to class theory using the  $V$ -definable *enriched stability predicate*  $S^*$ . A corollary is that  $(\text{HOD}, S^*)$  is rigid with respect to “ $V$ -constructible” embeddings. Our second result, joint with Cummings and Golshani [1], provides a model in which  $\alpha^+$  of HOD is less than  $\alpha^+$  for all infinite cardinals  $\alpha$ .

### References

- [1] J. Cummings, M. Golshani, S. Friedman, *Collapsing the cardinals of HOD*, submitted.
- [2] S. Friedman, *The stable core*, Bulletin of Symbolic Logic vol.18, no.2, 2012, 261–267.