

# DEPENDENT THEORIES WITH A NEW PREDICATE

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Expansions of stable theories by predicates for a certain kind of subsets (submodels, indiscernible sets, arbitrary small subsets) has been studied by Baldwin, Baizhanov, Benedikt, Bouscaren, Casanovas, Poizat, Shelah, Ziegler. Main question is when it stays in the same stability class.

We have some generalizations of the results from [CZ01] to the dependent context. Which are in particular sufficient to answer a question of Baldwin and Benedikt from [BB00]: naming a dense complete indiscernible sequence preserves *NIP*.

Joint work with Pierre Simon.

## REFERENCES

- [BB00] John Baldwin and Michael Benedikt. Stability theory, permutations of indiscernibles, and embedded finite models. *Transactions of the American Mathematical Society*, 352(11):4937–4969, 11 2000.
- [CZ01] Enrique Casanovas and Martin Ziegler. Stable theories with a new preicate. *Journal of symbolic logic*, 66(3):1127–1140, 09 2001.