What to review for the midterm

Advanced Model Theory

April 7, 2022

The following topics might be on the midterm:

1. February 24: definable types, heirs

2. March 3: dichotomy property, λ-stability, stability

3. March 10: stability, coheirs, invariant types, Morley products

4. March 17: Morley sequences, the order property, indiscernible sequences

5. March 24: Ramsey's theorem, indiscernible sequences, EM-types, total indiscernibility.

6. March 31: nothing.

7. April 7: definable closure, algebraic closure, elimination of imaginaries, codes.

All of the class notes can be found on eLearning. Some of these topics are also discussed in the textbook, especially in these sections: 11.1, 11.2, 11.4, 12.1, 12.2, 12.3, 12.9, 16.4, and 16.5.

Note that the exam will be <u>open book</u>. You are free to use the textbook and class notes.

The following topics will **not** be on the midterm:

1. Strong heirs.

2. Anything related to ultrapowers of types.

3. Anything specific to ACF.

4. Ehrenfeucht-Mostowski models.

5. Material from the "Extra Notes" page on eLearning.

6. Material from the textbook that wasn't discussed in class.

7. The precise formulation of many-sorted logic.

8. Everything on March 31: the fundamental order, bounds, the theorem of the bound, non-forking extensions. (We will return to these topics in the weeks after the midterm, now that we have the machinery like $\mathrm{acl}^{\mathrm{eq}}$ required to make sense of them.)