

## Bonus exercises for Class 4

### Advanced Econometrics I

Classes: Yuri Trifonov

Fall 2022

Dear students,

In this file you can find bonus problems from Class 4 that you may try to solve at home. These tasks are NOT obligatory, but you are welcome to solve them and send the solutions to our course assistant **Evgeniya Lapteva (evlapteva@edu.hse.ru)** BEFORE the next seminar. It will count as a part of your activity and give you some bonus points for your cumulative mark. You may solve all of them or part of the problems. Problems marked with a star (\*) are for those who feel confident in the topic and want to challenge themselves. You do not necessarily need to solve all of the problems.

### Problems:

- Given the t-statistic, derive the expression for the confidence interval for  $\beta$  (please, see Problem 1 (b))
- Problem 2
- Problem 4
- Problem 6\*

NB! Please, send your solutions from your student email addresses with a letter subject "**Bonus\_i\_surname**", where  $i$  is a number of a class. For example, "**Bonus\_1\_Ivanov**". Otherwise, your solutions will not be received.

### !Academic Ethics Statement!

Please, respect the norms of academic ethics of HSE. Any attempt to cheat will result in a permanent ban on bonus tasks till the end of the course. Please, respect your lecturers and colleagues who complete assignments on their own.

### Announcement

As we got official lists of students from the student office, a summary list is available now in the current statement. This list summarizes your total raw scores both for activity during seminars and points for bonus problems. Please, note that these scores are raw, and at the end of the course the sum will be normalized to a 10-point scale.

Yours Sincerely,

Yuri Trifonov,  
Department of Applied Economics,  
NRU HSE,  
Email: ytrifonov@hse.ru