STAT547C: Topics in Probability for Statistics

## Assignment 4

Due date: Oct. 20, 11:59 pm.
Winter Term 1 (Fall) 2021-22

Instructor: Benjamin Bloem-Reddy

## Instructions

Academic integrity policy: I encourage you to discuss verbally with other students about the assignment. However, you should write your answers by yourself. For example, copying (either manually or electronically) part of a function or a $\mathrm{LA}_{\mathrm{E}} \mathrm{X}$ equation is not permitted; and if you use online resources, you must cite them. If you discuss the assignment with anyone (a classmate or anyone else), you must say so at the top of your solutions. Also, refrain from looking at answer keys from other schools, previous years, or the Math Stack Exchange. For more information, see:
http://learningcommons.ubc.ca/guide-to-academic-integrity/

1. You only have to do the required questions for full marks. While the other questions are optional, we encourage you to at least attempt them if you are motivated to learn the subject in depth.
2. Justify your answers formally.
3. Submit your work by 11:59 pm (Vancouver time) on the due date to Gradescope (.pdf) and Canvas (.tex).
4. Textbook questions marked graded and all non-textbook questions will be graded for correctness (partial credit will be given). The remaining questions will be marked on binary scale for "Did you make a good effort?"

## 1 One probability measure from another

Required: Jacod and Protter (2nd edition!): 9.5 (graded), 9.6, 9.7 (graded)
[10 $\operatorname{mark}(\mathrm{s})$ ]

## 2 Some specific examples

Required: Jacod and Protter (2nd edition!): 9.14 (graded), 9.16
[5 mark(s)]
Optional: 9.22, 9.23

