

## Plan for tutorial 9/01/2020

- 1) Comment on Christmas Problems
- 2) Comment on Big Homework 3: problems 3, 4
- 3) Comment on Big Homework 4: problem 2, 4
- 4) Comment on error in PS9: self-adjoint operator has real spectrum, NOT NONNEGATIVE, just consider multiplication operator on  $L^2(\mathbb{R})$ .
- 5) ~~Problem ST3 from PS8: spectrum of right shift on  $L^2(\mathbb{Z})$ .~~
- 6) CM, ST2, ST3 from PS9, (ST4 is part of B+15)
- 7) Convolutions, Schwartz space - as much as we will be able to do.

5'

SUMMARY: methods used to study spectrum of the operator

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SUMMARY: what do we know about spectrum of compact op. and self-adjoint operators?

*combined*



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