

## Life insurance II

### HW 3: Multiple decrements

1. Use the Unisex Life Tables and the technical interest rate 1.2%.
2. Using the probabilities for disability (file LT\_disability.txt) prepare life tables with two causes of decrement: death and disability.
3. Using the life tables, compute the net single premium for your insurance (starting with your age) valid until the age of 65 which provides 50 thousand to a beneficiary in the case of death and 4 million CZK to you in the case of disability, each paid at the end of the year of decrement.
4. Report the NSP for the death and disability part separately.

### HW 4: Multiple lifes

Compute the net single premium for:

1. widow's annuity-due (asymmetric),
2. widow's and widower's annuity-due (symmetric).

Consider ages  $x, y \in \{30, \dots, 65\}$ . Please plot the NSP surfaces.

**Send a pdf file surname\_name\_HW34.pdf to my e-mail until April 22, 2020.**