Non-Life Insurance

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Collegio Carlo Alberto

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Exam: (to be determined) 2018; closed-book exam, a calculator is allowed, the exam paper will print all necessary formulas (densities, …). You will not be asked to write R code, but you should be able to explain and understand R code and R output (as we did in the class).

Course outline and study material:

Part I: Loss models for frequencies and severities

Study the lecture sheets Part I – lecture 1, Part I – lecture 2 from the course material.

Study the R demo: claim_count_distributions_in_R.R and severity_distributions_in_R.R

Study the exercises in the document 'ClaimCountsQ.pdf'

Watch the online exercise on splicing, available from:

https://www.youtube.com/watch?v=zaKyiNclD2w

Part II: Generalized Linear Models for insurance pricing

Study the lecture sheets Part II – lecture 1, Part II – lecture 2 from the course material.

Study the R demos: RdemoRatemaking.R

Study the exercises in the document: 'RiskClassificationGLMsQ.pdf', i.e. exercise 2, 4, 5 and 6

Watch the online lectures available from: (this corresponds with the content of Part II – lecture 1)

Expert movie GLM 1 - Katrien Antonio - https://youtu.be/wUkaePwkYZE

Expert movie GLM 2 - Katrien Antonio - https://youtu.be/aUBqz3Nx9IY

Expert movie GLM 3 - Katrien Antonio - https://youtu.be/po4D79YbWYI

Part III: Claims reserving

Study the lecture sheets Part III from the course material.

Study the R demos related to claims reserving.

For more background material: see the books mentioned on the lecture sheets.