

Dear colleague,

the next **Bergen biostatistical seminar** will be given by

Prof. Magne Thoresen, Oslo Centre for Biostatistics and Epidemiology, Department of Biostatistics, University of Oslo.

Date and time: Tuesday 19 January 2016, 11.00-12.00

Place: Centre for Clinical Research, Armauer Hansen's House, Haukeland University Hospital, room 337 (Bjørgvin)

Title: Spurious interaction as a result of categorization

Abstract: It is common in epidemiological research to convert continuous variables into categorical variables by grouping values into categories. Such categorized variables are then often used as exposure variables in some regression model. There are numerous statistical arguments why this practice should be avoided, and in this talk I'll present yet another such argument. I'll show that categorization may lead to spurious interaction in multiple regression. We will see precise analytical expressions for when this may happen in the linear regression model with normally distributed exposure variables, and I will show by simulations that the analytical results are valid also for other distributions. Further, I will give an interpretation of the results in terms of a measurement error problem.

The seminar is open for everyone interested.

Welcome!

Geir Egil Eide