

Dear colleague,

The next Bergen biostatistical seminar is a joint seminar with the epidemiological research groups at Department of Global Public Health and Primary Care and will be given

Wednesday 22 Feb 2017, 12.15-13.00

by

Nello Blaser,

Department of Mathematics (Topology group), University of Bergen, Norway/ Institute of Social and Preventive Medicine (ISPM), University of Bern, Switzerland.

Title: Epidemiology on mathematical models of the scale-up of antiretroviral therapy and transmission of HIV in Southern Africa

Abstract:

Topological data analysis (TDA) is a new approach to the analysis of data. The main idea of TDA is to recognize patterns or shapes in data and the underlying premise is that this shape matters. High-dimensional data often has low-dimensional features that can be characterized using TDA. In contrast to traditional methods such as principle component analysis, multidimensional scaling and cluster analysis, TDA is sensitive to both large and small scale patterns. I will present the divisive cover algorithm for TDA and illustrate on several examples how it can be useful in epidemiology. The examples discussed will include prognosis of leukaemia patients from single-cell data, identification of breast cancer sub-populations from gene expression data and seasonality of Malaria.

Place:

Department of Global Public Health and Primary Care, Kalfarveien 31, Bergen, Bjerkedalsrommet, 2.etg.

The seminar is open for everyone interested.

Welcome!

Miriam Gjerdevik and Geir Egil Eide