Kolloquium „Statistische Methoden in der empirischen Forschung"

Wann: 08. Januar 2019, 17:00 – 18:30 Uhr

Wo: Robert Koch-Institut | Nordufer 20 | 13353 Berlin (Wedding),
        S41, S42, U9 Westhafen | U9, Bus 142 Amrumer Str

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Klassifikation und Vorhersagenmodelle für menstruelle Blutungsmuster durch maschinelles Lernen

Machine Learning methods belong to the innovative scientific field of artificial intelligence and are becoming increasingly popular, especially in regards to Big Data analysis. Specific problems are addressed by systematically analyzing complex data while combining the strengths of computer science and statistical methods. Within the framework of low-dose IUD patient counseling, a Machine Learning model was set up in order to predict individual future menstrual bleeding patterns.

The Levonorgestrel releasing intrauterine system is used as a long-acting reversible method of contraception. Changes in menstrual bleeding patterns are common in LNG-IUS users. A lack of awareness of bleeding changes can affect satisfaction and continuation with this method. Describing the likelihood and nature of changes in bleeding as part of an effective counseling approach may therefore contribute to addressing women's needs. In order to adequately address this need, novel approaches have been developed which are based on data science methodology.

Within the this talk we will learn about the challenges of (statistical) bleeding pattern classification, the general approaches of setting up Machine Learning prediction models and the application within patient counseling.