# Università degli Studi di Pavia

Dottorato di Ricerca in Bioingegneria e Bioinformatica

### Veterans Affairs Informatics and Computing Infrastructure (VINCI) Big Data Analytics

# **Lewis Frey**

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### Mercoledì 8 luglio 2015 Ore 15.00 Aula seminari

(ex-dipartimento di Informatica e Sistemistica)

#### Abstract

An unsolved problem in health informatics is how to apply the past experiences of patients, stored in large-scale medical records systems, to predict the outcomes of patients and to individualize care. One approach to prediction, heretofore impractical, is rapidly finding a patient cohort "similar enough" to an index case that the health experiences and outcomes of this cohort are informative for prediction. This task is formidable because of large variability of the vast numbers of patient attributes with the added complexity of sequences of patient encounters evolving over time. Epidemiological considerations such as confounding by indication for treatment also come into play.

The Dr. Frey will discuss improvements and issues with the use of big data methodologies for predictive analytics in clinical research. Big data will be characterized by volume, variety, veracity and velocity. He will draw upon his experience with the development of the Clinical Personalized Pragmantic Predictions of Outcomes developed for the Veterans Affairs in the USA.

I dottorandi e gli interessati sono caldamente invitati a partecipare

Coordinatore del dottorato Prof. R. Bellazzi

