

## Schedule

### First International Workshop on Big Data Mathematical and Statistical Tools for Life Science

Saturday, May 14, 2016

Central Amphitheatre of the university  
Opening and Introductory tutorials

Time	Lecturers and Titles of Talks
8:30-10	Reception
10-11	Opening and officials welcome
11-12:30	Ali Mohammad-Djafari <a href="#">An</a> Overview of Mathematical and Statistical tools for Big Data
12:30-14	Lunch
14-15	Ali Mohammad-Djafari <a href="#">Hierarchical Models and Variational Bayesian Approximation for Learning and Inference for Big Data</a>
15-15:30	Break
15:30-17	Hassan Pezeshki Big data and Bioinformatics

Sunday, May 15, 2016

3<sup>rd</sup> Floor of the Mathematics Faculty (no. 306 & 304)  
Mathematical and Statistical tools 1

Time	Lecturers and Titles of Talks
9-10:30	François Orieux <a href="#">Fast MCMC algorithm for large scales inverses problems</a>
10:30-11	Break
11-12:30	Jean-François Giovannelli <a href="#">Segmentation of piecewise constant images from incomplete, distorted and noisy data</a>
12:30-14	Lunch
14-15:30	Kasra Alishahi Multiple Hypothesis Testing, Challenges and Opportunities
15:30-16	Break
16-17	Mohsen Rezapour Limit behavior of the sum of a stochastic volatility model

**Monday, May 16, 2016**  
**3<sup>rd</sup> Floor of the Mathematics Faculty (no. 306 & 304)**  
**Mathematical and Statistical tools 2**

Time	Lecturers and Titles of Talks
9-10:30	<b>Stéphane Robin</b> <a href="#">Exact Bayesian inference for some models with discrete parameters</a>
10:30-11	<b>Break</b>
11-12:30	<b>Abdolreza Sayyareh</b> <a href="#">Non-nested and misspecified model selection for big data</a>
12:30-14	<b>Lunch</b>
14-15	<b>Pierre Baudot</b> <a href="#">Topological structures of information: theory, perspectives and applications to biological data and biological models</a> (PART 1)
15-15:30	<b>Break</b>
15:30-17	<b>Pierre Baudot</b> <a href="#">Topological structures of information: theory, perspectives and applications to biological data and biological models</a> (PART 2)

**Tuesday, May 17, 2016**  
**3<sup>rd</sup> Floor of the Mathematics Faculty (no. 306 & 304)**  
**Applications in Life Science: Medical and Biomedical imaging systems**

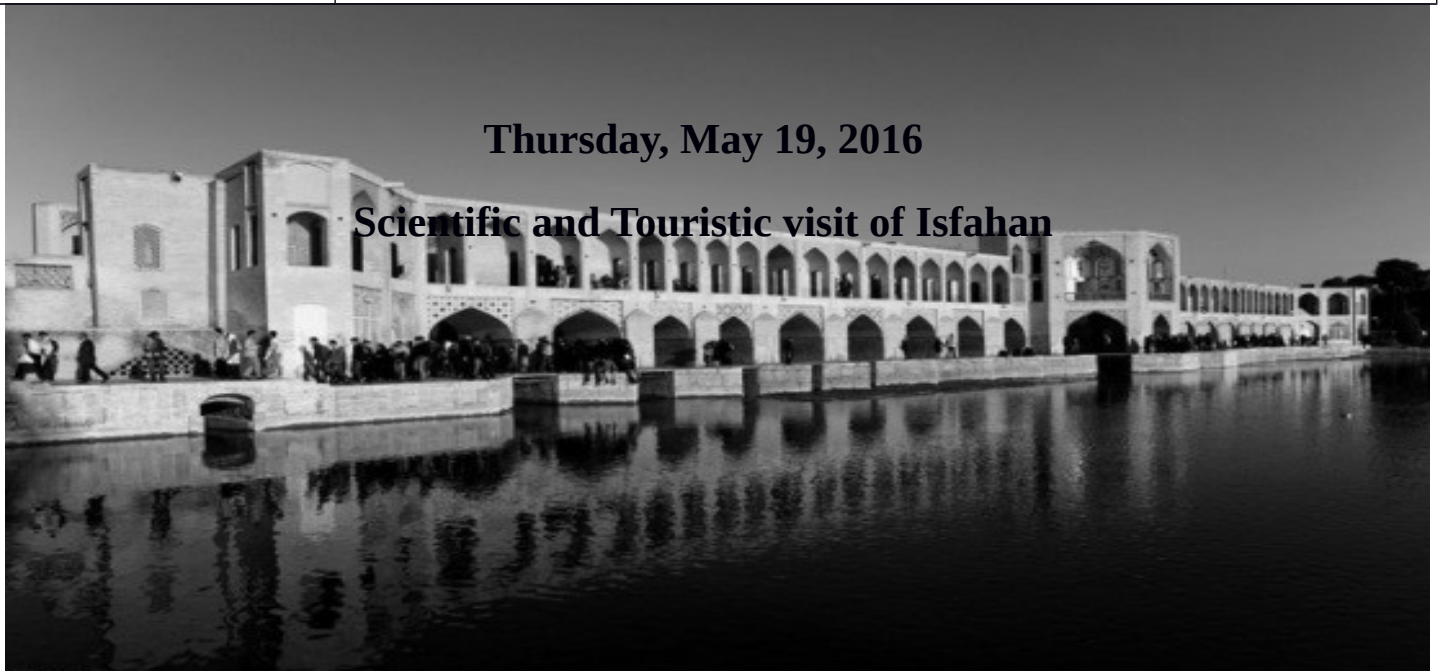
Time	Lecturers and Titles of Talks
9-10:30	<b>S. Morteza Najibi</b> <a href="#">Protein Classification and Prediction Using Multiple Ramachandran Distributions</a>
10:30-11	<b>Break + Poster Session</b>
11-12:30	<b>Maryam Amirhaeri</b> Big Data Analytics: A New Insight into Traditional Machine Learning Methods
12:30-14	<b>Lunch</b>
14-15:30	<b>Mohammad Ali Oghabian</b> The role of neuroimaging research laboratories in promoting pre-surgical brain mapping
15:30-16	<b>Break + Poster Session</b>
16-18	<b>Gholamreza Nakhaeizadeh</b> <a href="#">Applications of Big Data Mining in the Healthcare Industry</a>

**Wednesday, May 18, 2016**  
**3<sup>rd</sup> Floor of the Mathematics Faculty (no. 306 & 304)**  
**Applications in Life Science**

Time	Lecturers and Titles of Talks
9-10	Abolfazl Fatholahzadeh <a href="#"><u>Building Incremental Homographs of Big Data</u></a>
10-11	Dominique Laffly Big Data Processing for Environmental application
11-11:30	Break
11:30-12:30	Hadi Zare High Dimensional Feature Selection based on Probabilistic Structure Learning Approach
12:30-14	Lunch
14-15	Vincent Vigneron <a href="#"><u>Alzheimer's disease early detection with Deep-learning. The machine learning support</u></a>
15-15:30	Break
15:30-16:30	Hamid Reza Hakimdavoodi Evaluating Dynamic correlations for high dimensional Time series
16:30-17:00	Closing of the First International Workshop on Big Data Mathematical and Statistical Tools for Life Science

**Thursday, May 19, 2016**

**Scientific and Touristic visit of Isfahan**



## Poster Session

1. **Minou Yari**, Time Series Prediction of Big Data.
2. **Nahid Ghaderee and Mina Aminghafari**, Big Data and Neural Network-Fuzzy Clustering.
3. **Mitra Ghanbarzadeh and Mina Aminghafari**, Prediction of high dimensional data using wavelets and principal components analysis.
4. **[Narges Sohrabi](#) and [Mina Aminghafari](#)**, A new Model Selection Criterion for High Dimensional Data.
5. **Mohammad Javad Davoudabadi and Mina Aminghafari**, A new Preprocessing Method for Big Data using Fuzzy Wavelet transform.
6. **Mehdi Ashkartizabi and Mina Aminghafari**, Clustering high dimensional data using different dimension reduction approaches.
7. **Ferdos Gorji and Mina Aminghafari**, A review of anomaly detection methods in big data.
8. **Alireza Shahbazi, Mina Aminghafari, Adel Mohammadpour and Mohammad Mohammadi**,
9. Linear Prediction for Stable Random Processes: A Review.