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**Date**  
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**Subject**  
PI.lab Quarterly event TNO

## PI.lab Quarterly event

March 3, TNO, Anna van Buerenplein 1, Room 10.008

12.30 – 17.30	<b>PI.lab Quarterly Event</b>
12.30 – 13.30	Lunch
13.30 – 13.45	<b>Welcome, brief introduction of participants</b>
13.45 – 14.15	<b>Somayeh Djafari, LLM (TNO)</b> <i>RESPECT4U: a privacy framework for big data challenges</i>
14.15 – 14.45	<b>Sascha van Schendel, LLM (TILT)</b> <i>Challenges in regulating Big Data: an international perspective</i>
14.45 – 15.15	<b>Break</b>
15.15 – 16.00	<b>Zekeriya Erkin (TU Delft)</b> <i>Processing Biometric Data under Encryption: Challenges and Opportunities for Cryptographers</i>
16.00 – 16.30	<b>Marc van Lieshout en Jaap-Henk Hoepman</b> <i>PI.lab work programme 2017</i>
16.30 – ...	<b>Drinks</b>

### Zekeriya Erkin

In the last decade there appeared new services that rely on privacy-sensitive data of customers such as online social networks, customised advertising and biometric data processing. In such services the cost of possible misuse of the data is so high that it is essential to design the services with privacy protection in mind. Among many solutions, protocols based on cryptography are promising as they provide provable security. Unfortunately, these protocols are also very demanding in terms of computation and communication that prevents them to be deployed in practice at the moment.

In this talk, we will investigate the cryptographic approach that processes sensitive data using homomorphic encryption, analyse the progress in terms of efficiency in the recent years and discuss research challenges and opportunities.

### **Sascha van Schendel**

The use of Big Data has become more interesting and viable to governments in the past couple of years. With the increase of possibilities for public policy and technological capabilities, the question arises how the legal protection –e.g. in terms of privacy and data protection- of citizens who are subjected to these new competences should be strengthened accordingly. While we are having this debate in the EU and while we are also introducing new legal instruments such as the GDPR and the Police Directive that might offer more protection in the era of Big Data, it is interesting to view this problem from a more international and abstract perspective. What interesting developments are taking place in terms of legislation and use of Big Data – for better or for worse-? What obstacles do we come across when we try to regulate such a phenomenon as Big Data?

### **Somayeh Djafari**

TNO/PI.lab has developed an approach that combines the key elements of behaving privacy respecting in one encompassing perspective: RESPECT4U. RESPECT4U framework uses the GDPR as the legal ‘backbone’. Protecting persons in respect to the processing of their data requires a holistic approach in which various perspectives are elaborated and combined. Data need to be securely processed, privacy risks need to be identified, organisations need to demonstrate accountability. While privacy is often considered to be a dissatisfier, an asset with costs and no revenues, the RESPECT4U framework presumes privacy to contribute to customer satisfaction, and to contribute to lowering organisational costs by dealing with risks in a systematic and structured manner. Considering that the developments taking place today may have unknown, unintended and unforeseen threats to human values associated with privacy such as discrimination, exclusion, stigmatisation, REFLECT4U includes an ethical perspective as well.

