**Title: “Intelligent Ultrasound”**

**Abstract:**

User dependence is one of the main challenges of ultrasound diagnosis. Specifically, both acquisition of the standard plane and measurement of biometric parameters are crucial for medical ultrasound diagnosis. However, these processes require substantial experience and a thorough knowledge of human anatomy. This talk will introduce our recently developed machine learning algorithms for automating standard plane detection and biometry measurement in ultrasound. Our developed learning algorithms include random forest, convolutional neural network, recurrent neural network and spatio-temporal regression. All these projects were carried out jointly with local hospitals and companies in Shenzhen, Guangzhou and Hong Kong. Some of them are being commercialized.



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