**Department of Computer Science AGH and IBM Software Laboratory in Krakow invite to**

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**Krakow Quantum Informatics Seminar (KQIS)  
(KQIS is an official seminar of the Quantum Computing Section of the Computer Science Committee of the Polish Academy of Sciences)**[**https://www.informatyka.agh.edu.pl/en/kqi-seminars/**](https://www.informatyka.agh.edu.pl/en/kqi-seminars/)

**Tuesday, 6 October 2020, 9.30-11.00 via Webex**

[**https://ibm.webex.com/meet/tomasz.stopa**](https://ibm.webex.com/meet/tomasz.stopa)

**Tomasz Stopa - IBM Quantum Ambassador**

IBM Software Laboratory in Krakow, PL

**IBM’s roadmap towards million qubits**

**Abstract**

For last 20 years quantum computers evolved from single qubit to 65 qubits in IBM’s Hummingbird quantum processor. However, the progress is not linear here, quantum technology progress accelerates – as can be seen on quantum volume example which doubles every year.

During the presentation, IBM’s roadmap will be presented for quantum computers’ evolution in next years. We’ll discuss both the goals as well as technology which will be used to achieve them.

**Useful links**  
<https://www.ibm.com/blogs/research/2020/09/ibm-quantum-roadmap/>  
<https://newsroom.ibm.com/5-Things-About-IBM-Roadmap-to-Scale-Quantum-Technology>  
<https://www.ibm.com/blogs/research/2020/01/quantum-limited-amplifiers/>  
  
<https://arxiv.org/pdf/1907.09528.pdf>  
<https://arxiv.org/pdf/2008.08571.pdf>  
<https://arxiv.org/pdf/1902.09054.pdf>  
<https://arxiv.org/pdf/1912.10942.pdf>  
<https://arxiv.org/ftp/arxiv/papers/1208/1208.0928.pdf>