

The materials of tomorrow, today.



Prof. Alán Aspuru-Guzik

Department of Chemistry and Department of Computer Science, University of Toronto

Date & Time: 28 Nov. 2018 (Wed.) 16:00

Place: IMS Research Building Room 301

In this talk, I argue that for materials discovery, one needs to go beyond simple computational screening approaches followed by traditional experimentation. I have been working on the design and implementation of what I call “materials acceleration platforms” (MAPs). MAPs are enabled by the confluence of three disparate fields, namely artificial intelligence (AI), high-throughput quantum chemistry (HTQC), and robotics. The integration of prediction, synthesis and characterization in an AI-driven closed-loop approach promises the acceleration of materials discovery by a factor of 10, or even a 100. I will describe our efforts under the Mission Innovation umbrella platform around this topic.

