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Hong Kong uses novel computation methods to develop COVID-19 hotspot map

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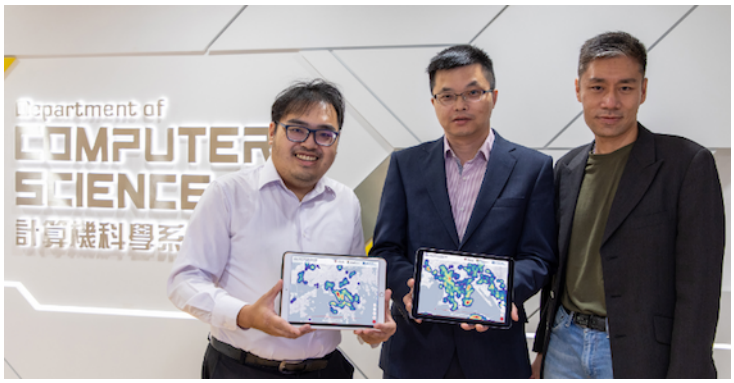
Real-time data represented in the Hong Kong COVID-19 Hotspot Map comes from the Interactive Map Dashboard maintained by the government



A research team led by Hong Kong Baptist University (HKBU) has launched the Hong Kong COVID-19 Hotspot Map which allows the intuitive visualisation of real-time and dynamic geographic distribution of COVID-19 cases in Hong Kong.

The map is supported by novel computation methods of big spatial-temporal data developed by the team with substantially enhanced resolution and speed in visualisation results output.

Mastering timely and accurate information on the geographic distribution of COVID-19 infection cases is important for the implementation of effective infection control measures and allocation of medical resources against the pandemic by related authorities. Such information is also useful for members of the public in understanding the health risks they are facing.

COVID-19 infection risks in different geographical areas, in terms of abundance of COVID-19 cases, are shown in a colour scheme, ranging from purple for the lowest risk level to red for the highest. Evolving risk levels of locations visited by infected persons in the past seven days are visible through the dynamic movement of colour patterns on the map.

The colour visualisation of COVID-19 risk levels on the map is based on the automatic, real-time updating and computation of infection case data.

Image caption- Professor Xu Jianliang, Head of the Department of Computer Science (middle); Professor Byron Choi Koon-kau, Associate Head (right) and Dr Chan Tsz-nam, Research Assistant Professor of the Department of Computer Science (left).