

## **Smart Urban Water Supply Systems and Inverse Problems**

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Water supply networks are the arteries of cities. Yet their maintenance is expensive and their diagnosis is difficult. Energy and money are wasted by blockages and leaks. A project, the Smart Urban Water Supply Systems (UWSS), led by Prof Mohamed Ghidaoui from the HKUST Department of Civil and Environmental Engineering, tackles the problem. The speaker will introduce the project briefly and discuss related mathematics and inverse problems: the water hammer equations, hyperbolic inverse problems on a graph and the boundary control method.