

The Hong Kong University of Science and Technology
Dept of Information Systems, Business Statistics
and Operations Management
Frontiers in Operations Management Workshop



**The Impact of Surgeon Daily Workload and its
Implications for Operating Room Scheduling**

by

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Date : **2 December 2022 (Friday)**
Time : **9:30 – 10:15 AM**
Venue : **Room G012, LSK Business Building, HKUST**



Abstract:

In healthcare service systems, the workload level can substantially impact service time and quality. We investigate this relationship in the context of cardiac surgery. Using 5,600 cardiac surgeries in a large hospital, we quantify how individual surgeon's daily workload (number of cases performed in a day) affects surgery duration and patient outcomes. To handle the endogeneity issue, we construct novel instrument variables using hospital operational factors. We find surgeon's high daily workload leads to longer OR times and post-surgery length-of-stay. We develop a scheduling model that incorporates the estimated effects and show that it can lead to substantial improvement.

Bio:

Prof Yiwen Shen is an Assistant Professor in the Operations Management group of the ISOM Department at HKUST. He obtained a bachelor degree in physics from Peking University and a PhD degree in operations management from Columbia Business School. His research interest lies in empirical modeling and data-driven decision making with applications in healthcare systems and finance.

All interested are welcome!
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