


Science and Technology in Japan (July 4th, 2017- July 13th, 2017)
Lecturer Profile and Brief Abstract of Lecture & Field Trip

Treewidth: a powerful tool for algorithm design	
Date: Wednesday, July 12th	Lecturer: Hisao TAMAKI
Brief Abstract of Lecture: Many computational problems arising in practice can be formulated as those on graphs. Some graph problems, such as vertex coloring or Hamiltonicity, are hard in the sense that efficient algorithms for solving them on general graphs are unlikely to exist. If we consider a parameter called treewidth of graphs, then algorithms that are efficient on graphs with small treewidth can be designed for many of those hard problems. In this lecture, we discuss the notion of treewidth, algorithms for deciding treewidth, and applications of treewidth. This lecture is an elementary introduction to the field and will be easy to follow for both CS and non-CS students.	
Field Trip: We will visit Fixters, a software company having strength in parallelization and optimization, and will look at some applications of their innovative technology. *http://www.fixstars.com/en/*	
	Hisao TAMAKI, Professor of School of Science and Technology since 1997. He received MSc in Physics from the University of Tokyo in 1977 and PhD in Computer Science from the University of Toronto in 1993.