

ScaleGraph Workshop 2013

Venue:

Computer Science Department Conference Room (E1004)

10th Floor, W 8E building (W8E), Ookayama Campus, Tokyo Institute of Technology

Time	Topic (minutes)	Detail	Speaker
ScaleGraph Overview session (50 minutes)			
14:30 – 15:20	Introduction to ScaleGraph (10)	<ul style="list-style-type: none"> • Background • Problem statement • Goals & challenges • Sponsor • Team members (describe briefly) 	Toyotaro Suzumura
	ScaleGraph Architecture Overview (20)	<ul style="list-style-type: none"> • X10 overview (APGAS, compilation arch) • ScaleGraph architecture • Graph representation • Pregel computation model & XPregel • Main features <ul style="list-style-type: none"> ➤ Algorithms ➤ Collective communication ➤ IO ➤ Data structures ➤ Third-party library (ARPACK, ParMETIS) 	Koji Ueno
	Algorithms & Performance (20)	<ul style="list-style-type: none"> • Algorithm definition, application & performance evaluation <ul style="list-style-type: none"> ➤ Degree Distribution ➤ Betweenness Centrality ➤ MST/MSF 	Charuwat Hounkaew
		<ul style="list-style-type: none"> ➤ MaxFlow ➤ SCC ➤ HyperANF 	Hadafumi Ogata
<ul style="list-style-type: none"> ➤ PageRank ➤ Spectral Clustering 		Shogo Kishimoto	
Break 10 (minutes)			
Tutorial session (30 minutes)			

Time	Topic (minutes)	Detail	Speaker
15:30 – 16:00	ScaleGraph Official Website and Repository (2)	<ul style="list-style-type: none"> • Official web site • Git repository • Mailing list 	Charuwat Houngkaew
	Installation Guide (5)		Charuwat Houngkaew
	Compilation and Running Guide (5)		Charuwat Houngkaew
	API Calling Style & Basic Coding (8)	<ul style="list-style-type: none"> • API design concept <ul style="list-style-type: none"> ➤ Passing parameters • Reading graph, writing result <ul style="list-style-type: none"> ➤ CSVReader/Writer 	Charuwat Houngkaew
	ScaleGraph Demo (10)	<ul style="list-style-type: none"> • XPregel example, e.g. SSSP, degree distribution • Compile and run 	Charuwat Houngkaew
Q & A session (10 minutes)			
16:00 - 16:10	Q & A (10)		All ScaleGraph members
Summary session (10 minutes)			
16:10 – 16:20	Summary (3)		Koji Ueno
	Future Plan (5)		Koji Ueno
	Get Involved (2)	<ul style="list-style-type: none"> • Feature requests • Source code contribution 	Koji Ueno