

Travel Report for JUSTIPEN Hokkaido Workshop

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It was an honor to be invited to present our work on adaptive pseudo-spectral methods, based on multiresolution analysis and low-separation rank approximation of functions and operators for solving Schrodinger or Lippman-Schwinger equations and its applications to density functional theory. I enjoyed extensive conversations with our Japanese colleagues (especially Prof. Otsuka and Prof. Vary) on building long term interdisciplinary collaborations with mathematicians, computer scientists and physicists. I also enjoyed extensive discussions on numerical methods and parallel computational methods with post-doctoral fellows, junior faculty and graduate students. Their enthusiasm is encouraging. I also learned useful facts and computational techniques about Green's functions and its application to scattering.

Finally, I would like to thank Prof. Itagaki and Mrs. Yoshida and their staff for their exceptional hospitality.