

Talk 16, 14:50–

Impact of Prof. Takahashi's research

Fabian H.L. Essler (University of Oxford)

Tôru Sakai (SPring-8)

Professor Minoru Takahashi has made numerous and lasting contributions to theoretical and statistical physics. His extensive body of work is regularly cited throughout the international physics community. A central theme of Prof. Takahashi's career has been the exact Bethe ansatz solution of one-dimensional quantum many-body systems, for which he has pioneered the calculation of various physical quantities, especially thermodynamic properties by developing the thermodynamic Bethe ansatz and nonlinear integral equation approaches. In addition to his work on exact solutions, Prof. Takahashi has also obtained many important results on other subjects, for example, on modified spin wave theory, perturbation expansion of the Hubbard model, quantum Monte Carlo simulation of quantum systems, Haldane gap systems, and quasi-one-dimensional organic ferromagnets. In order to commemorate Prof. Minoru Takahashi's retirement from ISSP, University of Tokyo, we will attempt to briefly summarize his important contributions in this talk.