

Tackling the real-time challenge in strongly correlated systems: spectral properties from Euclidean path integrals

13-17 September, 2021

Monday 13 September, 2021

Time	Talk	Speaker
13.00 – 13.30	Welcome	Gert Aarts, ECT* Director
13.30 - 14.00	Intro	Organizers
14.00 – 14.30	Virtual coffee	
14.30 - 15.00	The inverse problem in hadron structure from lattice QCD	Martha Constatinou
15.00 – 15.30	Reconstructing QCD Spectral Functions with Gaussian Processes	Julian Urban
15.30 – 16.00	Informal discussion	

Tuesday 14 September, 2021

Time	Talk	Speaker
9.30 – 10.00	Analytic continuation. New philosophy: answers to well-posed questions for ill-posed problem	Andrey Mishenko
10.00 – 10.30	Sparse modeling approach to analytical continuation of imaginary-time data and quantum many-body calculations	Hiroshi Shinaoka
10.30 – 11.00	Virtual coffee	
11.00 – 11.30	Sparse modeling approach to obtaining the QCD shear viscosity from smeared correlation functions	Etsuko Itou
11.30 – 12.00	Inclusive processes as smeared spectral functions	Shoji Hashimoto
12.00 – 13.00	Applications Discussion	

Wednesday 15 September, 2021

Time	Talk	Speaker
13.00 – 13.30	Parton distribution function from Euclidean correlation functions	Kostas Orginos
13.30 – 14.00	Extraction of spectral densities from euclidean lattice correlators	Nazario Tantalo
14.00 – 14.30	Virtual coffee	
14.30 – 15.00	A spectral reconstruction test using the two-dimensional O(3)-model	John Bulava
15.00 – 15.30	Bayesian methods	Gaurang Parkar
15.30 – 16.30	Informal discussion	

Thursday 16 September, 2021

Time	Talk	Speaker
9.30 – 10.00	TBC	Maxwell Hansen
10.00 – 10.30	Vector spectral functions of the quark-gluon plasma	Harvey Meyer
10.30 – 11.00	Virtual coffee	
11.00 – 11.30	Comparison of spectral reconstruction methods from the FASTSUM Collaboration	Chris Allton
11.30 – 12.00	Charm physics at high temperature: towards understanding the systematics	Jon-Ivar Skullerud
12.00 – 13.00	Methods Discussion	

Friday, 17 September, 2021

Time	Talk	Speaker
13.00 – 13.30	TBC	Keh-Fei Liu
13.30 – 14.00	Determining the proton content with a quantum computer	Stefano Carrazza
14.00 – 14.30	Virtual Coffee	
14.30 – 15.00	Lattice QCD constraints on the thermal photon rate	Tim Harris
15.00 – 15.30	Closing – Summary & concluding remarks	Organizers