

Japan-UK Workshop on Quantum Gravity

Report of Contributions

Contribution ID: 1

Type: **not specified**

Recent developments in double-scaled SYK

Monday 22 September 2025 09:30 (1 hour)

SYK model is an interesting toy model of holographic duality. In particular, the so-called double-scaled SYK (DSSYK), which is defined by taking a large N limit with the number p of the p -body interaction scaled as $p=N^{1/2}$, has attracted a lot of attention recently since DSSYK is exactly solvable thanks to the underlying quantum group symmetry. In this talk, I will briefly review the recent developments in DSSYK.

Presenter: OKUYAMA, Kazumi

Contribution ID: 2

Type: **not specified**

TBA

Monday 22 September 2025 11:00 (1 hour)

Presenter: YAMAZAKI, Masahito

Contribution ID: 3

Type: **not specified**

TBA

Monday 22 September 2025 14:30 (1 hour)

Presenter: HESLOP, Paul

Contribution ID: 4

Type: **not specified**

TBA

Monday 22 September 2025 16:00 (1 hour)

Presenter: DOREY, Nick

Contribution ID: 7

Type: **not specified**

TBA

Tuesday 23 September 2025 09:30 (1 hour)

Presenter: MORIKAWA, Okuto

Contribution ID: 8

Type: **not specified**

TBA

Tuesday 23 September 2025 11:00 (1 hour)

Presenter: HANSEN, Tobias (Durham University)

Contribution ID: 9

Type: **not specified**

TBA

Wednesday 24 September 2025 09:30 (1 hour)

Presenter: MOULAND, Rishi

Contribution ID: 10

Type: **not specified**

Yang-Mills/QCD on $R^2 \times T^2$, adiabatic continuity, and η' potential

Wednesday 24 September 2025 11:00 (1 hour)

We show that 4d Yang-Mills/QCD can be semi-classically solved on $R^2 \times T^2$ with nontrivial 't Hooft flux. In this setup, 4d instanton splits into N center-vortex fractional instantons, and its dilute gas describes qualitative features of 4d confinement vacua via the adiabatic continuity. When we apply this technique to QCD with fundamental quarks, we can learn about the global structure of the η' potential.

Presenter: TANIZAKI, Yuya

Contribution ID: **11**

Type: **not specified**

TBA

Wednesday 24 September 2025 14:30 (1 hour)

Presenter: SKINNER, David

Contribution ID: 12

Type: **not specified**

TBA

Wednesday 24 September 2025 16:00 (1 hour)

Contribution ID: **13**

Type: **not specified**

TBA

Thursday 25 September 2025 09:30 (1 hour)

Presenter: EKHAMMAR, Simon

Contribution ID: **14**

Type: **not specified**

TBA

Thursday 25 September 2025 11:00 (1 hour)

Presenter: HELLERMAN, Simeon

Contribution ID: **15**

Type: **not specified**

TBA

Thursday 25 September 2025 14:30 (1 hour)

Presenter: GEORGOUDIS, Alessandro

Contribution ID: **16**

Type: **not specified**

TBA

Thursday 25 September 2025 16:00 (1 hour)

Presenter: NAMBA, Ryo

Contribution ID: 17

Type: **not specified**

TBA

Friday 26 September 2025 09:30 (1 hour)

Presenter: NAKAYAMA, Yu

Contribution ID: **18**

Type: **not specified**

TBA

Friday 26 September 2025 11:00 (1 hour)

Presenter: ROSS, Simon

Contribution ID: **19**

Type: **not specified**

Concluding Remarks

Friday 26 September 2025 12:00 (15 minutes)