

# SEMPARIS – Séminaires en région parisienne

<http://string.lpthe.jussieu.fr/semparis/>

## Séminaire commun LPTENS/LPTHE

**Lundi 18 Juin 2018, 14 :00**

LPTENS, LPTENS library

Domaines : hep-th

Titre : *Exact results on massless  $Z_3$ -QCD via anomaly matching*

Orateur : **Yuya Tanizaki ( RIKEN BNL )**

Résumé : *Recent advances on anomaly matching elucidates that the topology of QFT can constrain the possible phase diagram more strongly than we have thought. We show that QCD with massless fundamental quarks has not only the perturbative chiral anomaly but also the anomaly involving two-form gauge fields. As an application, we consider "Z<sub>3</sub>-QCD", which is the QCD with the twisted quark boundary condition, and show that some of symmetries must be broken at any circle radius ("temperatures") and quark chemical potentials.*

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