# Unit volume Liouville measure on the sphere with $(\gamma, \gamma, \gamma)$ -insertions: two constructions

- AFTER DAVID°, DUPLANTIER®, KUPIAINEN°,
 MILLER®, RHODES°, SHEFFIELD®, VARGAS°

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Les probabilités de demain, May 2016

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#### **OUTLINE**

I. Insertions: classical and quantum

II. Gaussian Free Field: Decomposition

III. Zero mode

IV. REWEIGHTING FACTOR

V. Theorem and consequences

#### SECTION I

Insertions: classical and quantum

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#### CLASSICAL INSERTIONS

A.K.A. CONICAL SINGULARITIES

$$\sqrt{5} \neq 1$$

Use the power of LATEX!

#### QUANTUM INSERTIONS

A.K.A. VERTEX OPERATORS

$$\sqrt{5} \neq 1$$

Use the power of LATEX!

#### $\gamma$ -INSERTIONS

A.K.A. "CHOOSE A POINT W.R.T. THE QUANTUM MEASURE"

$$\sqrt{5} \neq 1$$

Use the power of LATEX!

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#### SECTION II

Gaussian Free Field: Decomposition

## Section III

ZERO MODE

8 / 10

## Section IV Reweighting factor

9 / 10

#### SECTION V

### Theorem and consequences

10 / 10