

Invitation to Topological Recursion. (Kenzo Osuga).

①

Plan ① Def

② Application.

- 2.1 m. matrix / generalized Gordan
- 2.2. topological gravity / intersection.
- 2.3. Quantum curves — Jones poly. in knot theory.

Ideas.

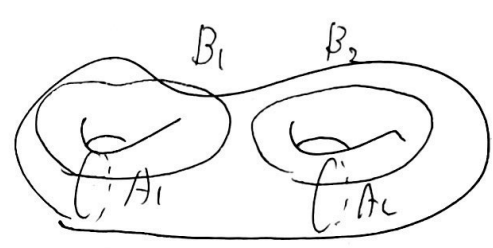
Σ : Riemann surface.

$\pi \downarrow$
 \mathbb{P}^1

$$\Sigma = \{x, y \in \mathbb{C}^2 \mid P(x, y) = 0\}$$

$$P(x, y) = y^2 - B(x).$$

x, y are meromorphic func on Σ .
 meromorphic function.



$$\mathcal{R} \subset \Sigma = \{p \in \Sigma \mid dx(p) = 0\}$$

Assume. $dx(p)$ does. Not have double or higher zeros.

Def A spectral curve consists of the collection of the following data.

- ① Σ Riemann surface.
- ②. x, y . merom func on Σ .
- ③ $A_0, B_0 \in H_0(\Sigma)$