

Sara Tukachinsky

Enumerative Geometry Beyond Numbers

postdoctoral fellow, IAS

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MSRI – 5 minute talks – Spring 2018

## Joint with J. Solomon

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- Bounding chain  $b \longrightarrow OGW(b)$
- Cohomological conditions  $\longrightarrow$  canonical  $b$ , invariant  $OGW$   
(e.g.,  $H^*(L; \mathbb{R}) = H^*(S^n; \mathbb{R}), n = \dim_{\mathbb{C}} X$ )
- $OGW$  count “disks” with point constraints on the boundary

$$\Omega(s, t) = \sum_{\beta, k, l} T^{\beta} \frac{s^k}{k! l!} OGW_k^{\beta}(\gamma_t^{\otimes l})$$

- Open WDVV: PDE in  $\Omega$ 
  - $\longrightarrow$  Computations  
e.g.,  $(X, L) = (\mathbb{C}P^n, \mathbb{R}P^n), n$  odd
  - $\longrightarrow$  Associativity of quantum product