

Developments in the β -Deformed Matrix Model of Selberg Type

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This is a talk based on the three papers in the references. The punchlines are i) 2d-4d connection 0d matrices acting as a bridge; ii) Jack polynomial and the finite N loop equation facilitate the computation of the Nekrasov function with ϵ_i , g_s finite. A schematic view of this rapidly developing field is available in my talk slides.

References

- [1] H. Itoyama, K. Maruyoshi and T. Oota, “The Quiver Matrix Model and 2d-4d Conformal Connection,” *Prog. Theor. Phys.* **123**, 957 (2010) [[arXiv:0911.4244 \[hep-th\]](https://arxiv.org/abs/0911.4244)].
- [2] H. Itoyama and T. Oota, “Method of Generating q-Expansion Coefficients for Conformal Block and N=2 Nekrasov Function by beta-Deformed Matrix Model,” *Nucl. Phys. B* **838**, 298 (2010) [[arXiv:1003.2929 \[hep-th\]](https://arxiv.org/abs/1003.2929)].
- [3] H. Itoyama, T. Oota and N. Yonezawa, “Massive Scaling Limit of beta-Deformed Matrix Model of Selberg Type,” [[arXiv:1008.1861 \[hep-th\]](https://arxiv.org/abs/1008.1861)].