

## Mirror dualities with four supercharges

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Mirror duality relates pairs of 3d  $N=4$  theories that share the same Infra-Red fixed point. At first, it was understood that mirror duality is induced from S-duality acting on the brane setups that engineers the 3d  $N=4$  theories.

I will discuss a different perspective on the topic, showing that 3d  $N=4$  mirror dualities can be proved purely in field theory using the dualization algorithm.

I will then show how to extend this approach to theories with less amount of SUSY, namely 3d  $N=2$  theories, showing a proposal for an exact mirror dual of the 3d  $N=2$  SQCD. I will also show how this result provides more insight on brane setups with four supercharges.

**Presenter:** COMI, Riccardo