

8th talk : The inverse transform martingale coupling

vendredi 5 juillet 2019 13:10 (50 minutes)

We exhibit a new martingale coupling between two probability measures μ and ν in convex order on the real line. This coupling is explicit in terms of the integrals of the positive and negative parts of the difference between the quantile functions of μ and ν . The integral of $|y - x|$ with respect to this coupling is smaller than twice the Wasserstein distance with index one between μ and ν . When the comonotonous coupling between μ and ν is given by a map T , it minimizes the integral of $|y - T(x)|$ among all martingales couplings.

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