Distance correlation had been introduced as a better alternative to the celebrated Pearson’s correlation. The existing algorithm for the distance correlation seemingly requires an $O(n^2)$ algorithm, and I will show how it can be done in $O(n \log n)$. Moreover, many other statistical dependency related quantities can be computed efficiently. I will give some other examples. Joint work with Gabor Szekely. If time permits, I will talk briefly my other prior works, e.g., detectability, beamlets, etc.