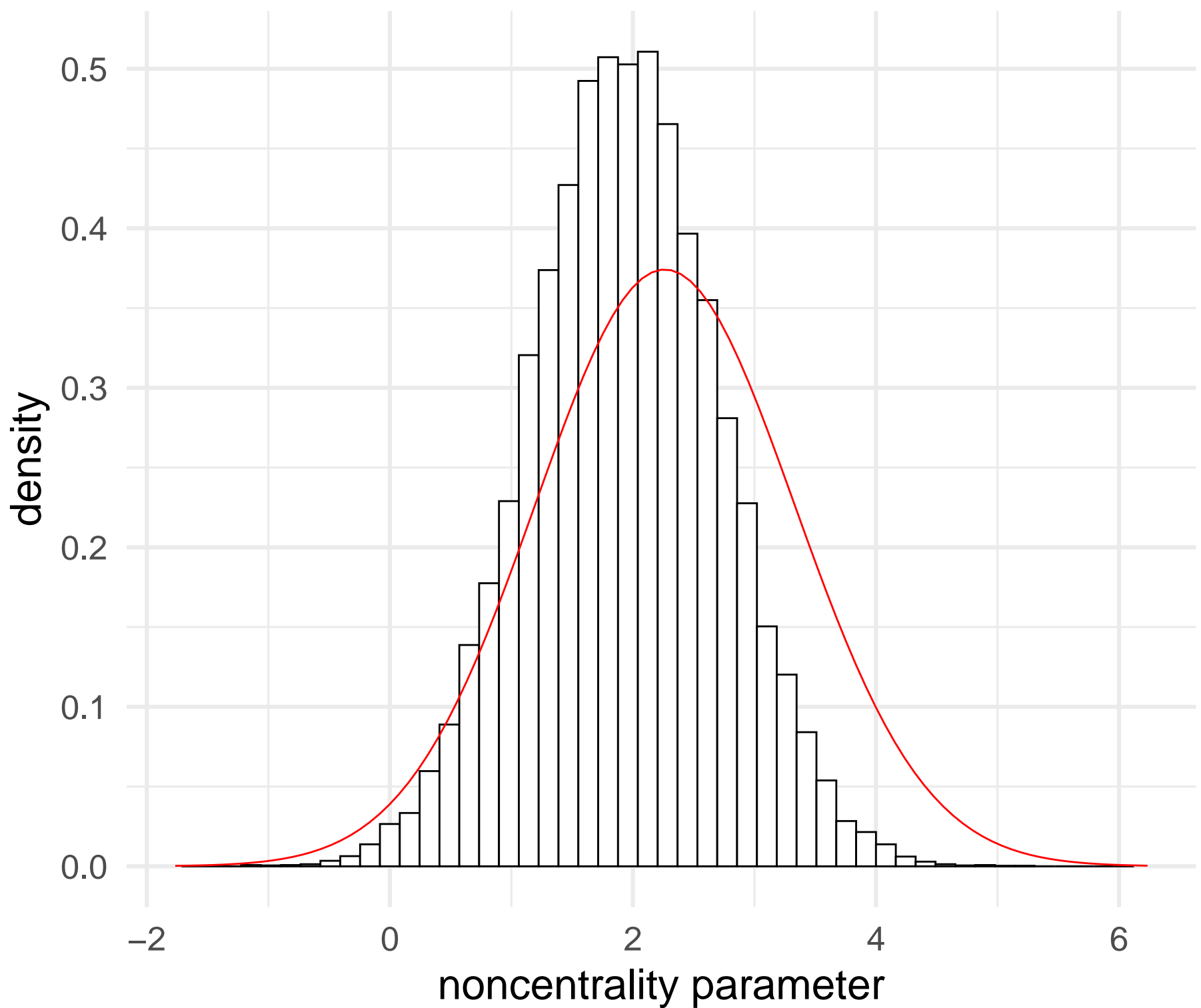histogram of 23088 noncentrality parameters