

Abstract. We often examine data whose sample mean converges to a normal distribution, but the variance generally depends on an unknown parameter. To get rid of this dependence, we can sometimes use the so-called variance-stabilizing transformation method. Firstly, this thesis explains the method in detail and finds a general procedure to find suitable transformations. Then it will focus on data from Poisson and binomial distributions with unknown parameters. For these data, it finds transformations that stabilize (asymptotic) variance, and compares them with the "improved" transforms from the article Anscombe (1948). Most of the thesis is devoted to the shape of these transformations. Finally, we show in the Poisson distribution simulation that it is really appropriate to use this method and compare the derived transformation with its Anscombe version.