

This thesis focuses on bootstrap methods suitable for inference on random coefficient autoregressive processes. First, we introduce the original method devised for independent identically distributed random variables and its basic variants used in the field of time series analysis. Then we define a random coefficient autoregressive process of order  $p$  ( $RCA(p)$ ). We describe some basic properties of the  $RCA(p)$  process and then focus on properties of the  $RCA(1)$  process. In the next section, we list the bootstrap methods consistent if used on the  $RCA(1)$  process and we prove consistency of wild bootstrap in case of the  $RCA(2)$  process. In the last chapter we examine properties of the previously described methods on simulated data.