



Figure X: Sources of uncertainty diagram highlighting potential contributing sources. For simplicity, this figure considers the sequencing of DNA from an environment and does not consider the process beyond the data output from the sequencer. The arrows pointing towards the central arrow show the experimental process from left to right and indicate the sources of variability which could contribute uncertainty. Conceptually it is clear how some of these factors contribute to systematic effects (bias). However, in addition these factors also contribute to the random error (variance) that will influence the precision of a potential finding.