

Supplementary materials for:

**A time-series model for underdispersed or
overdispersed counts** (I. L. MacDonald and F. Bhamani)

July 17, 2018

1 Data

There are six data-sets that have been discussed in this work and are made available here. These are:

1. counts of soap sales (Section 2.4),
2. the pedestrian counts series (Section 5),
3. the IP counts series (Section 6), `Weiss_downloads_241.txt`,
4. the emergency counts series (Section 7),
5. the gold particle counts of Jung and Tremayne (Section 8.2) and
6. the gold particle counts of Guttorp (Section 8.3).

The source of each data-set is described in detail in the relevant section of the text.

2 R code

There are three files of R code that accompany this work: `AllFunctionsNeeded.R`, `CMPHMM_etc.R`, and `CMPHMM_modified.R`. This code is partly an extension of the R code for the fitting of Poisson-HMMs to time series of counts which can be found at <http://www.hmms-for-time-series.de/second/appendix-a/ZMLcode.txt>.