Supplemental Material for Label Switching in Bayesian Mixture Models: deterministic relabeling strategies.

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In the folder "LabelSwitching" we have included all the code used in Subsection: *Relabeling algorithms, Gibbs Sampler.* This will enable readers to replicate all the analysis, simulations and comparisons described in a that part of the paper and to apply our proposed strategy (and alternative algorithms) to their own data. This folder contains the following files and folders:

1. instructions.pdf: in this PDF file we give a straightforward description of how to compile, under a Linux environment, the **C** code and generate the shared libraries needed to run our programs using the free statistical package **R**.

2. gibbs: this folder contains the **C** code to implement a standard Gibbs sampler and other related subroutines.

3. relabel: this folder contains the **C** code to implement our relabeling algorithm and the alternative proposals as described in the paper.

4. data_sets: this folder contains the data sets analyzed in our manuscript and other well known data sets from the mixture modeling literature.

5. results: once the readers replicate the analysis, all the results will be stored automatically in this folder.

6. Functions.r: in this **R** file are all the functions of **R** needed to replicate our experiments. Each function has been described and commented.

7. Example.r: in this **R** file we have outlined a complete analysis using our proposal and alternative algorithms.