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Adahuesca, June 24, 2017

In his mail, Ron raised some interesting issues where we think is the root for the present discussion. Let us try to clarify our perspective. Ron comments on *mathematical coherence* and seems to contrast it to *data driven approaches*, which we identify with *practice before theory*. For us, our approach is essentially *data driven*, and this point requires some explanation.

For us, data are the result of implementing some measuring process on some real world objects using a support and a scale which has been previously agreed on. This measuring process tries to extract information from the object that is suitable for a further analysis. We think that any analysis based on the data should acknowledge the characteristics and limitations of the support and scale used to obtain the data. In this sense, our approach is data driven. If concentrations are measured, they carry relative information. If interest is precisely in this relative information, we need to use methods that extract it out of the measurements available, and this is what we call *compositional approach*.

By the way, Ron mentions small area estimation. We think this is an area that has to be explored precisely from a data driven perspective as the one mentioned above, and are convinced that quite surely compositional methods will bring a lot of insight into the open questions in this field.

Ron also mentions, in his citation of his friend Terry Speed, the following: *The work by my former student Mark Robinson addresses the problem in RNAseq that when you have a lot of one or a few things, you necessarily have less of everything else, if the total is more or less constant*. This points that the information extracted is relative, not absolute, as *everything else* is not free to take any value, the same as *one or a few things*. From our point of view, this states the available information should be extracted in a data driven approach using compositional methods.