



S3 Fig: BM data [31]. Explained variance η^2 for each component Σ (top row) and cumulative sum of η^2 for each component Σ (bottom row). Each colored line indicates the data denoised with a specific set of parameters for the algorithms DEWAKSS and MAGIC. X indicates the data without denoising. MAGIC truncates the number of possible components to the number of PCs used in the algorithm, which here equals 100. The right column only shows the first 100 components for the respective η^2 and $\text{cumsum}(\eta^2)$. MAGICd1 is removed from the top right-hand figure because it compresses the other lines. The explained variance is computed through the singular value decomposition and singular values lower than the numerical precision threshold are considered equal to 0 and removed. This threshold is determined by the criterion $\sigma_i \leq \sigma_1 \times \max(i, j) \times \epsilon$, where i, j are the data dimensions and ϵ is the machine precision (`numpy.matrix_rank`).