

Errata of "Fundamentals of Data Analytics"

- Page 16, under Corollary 2.11, the interval should be:

$$\left[m_{ii} - \sum_{\substack{j=1 \\ j \neq i}} |m_{ij}|, m_{ii} + \sum_{\substack{j=1 \\ j \neq i}} |m_{ij}| \right]$$

- The proof of Theorem 2.27 (Ky Fan), pages 25-26: the proof has an error, since we have only $\sum_{j=1}^n w_{ji}^2 = 1$ and not $\sum_{i=1}^n w_{ji}^2 = 1$ as stated in the proof. We can have a simpler proof using the Fischer-Courant theorem, Theorem 2.26 of the book.
- On page 67, Lemma 4.4 can be applied to the superset of hollow symmetric matrices, i.e., symmetric matrices with zero diagonals. We need this version to finalize the proof of Theorem 4.5 (top of page 58).

In addition, the notation $a_{.i}, a_{.j}$ and a_{ij} means *average* over the dotted indices, and not the summation. Therefore, the correct definition for $a_{i:}$ is $a_{i:} = \frac{1}{n} \sum_{\ell=1}^n a_{i\ell}$.

- Typo on page 112, at the bottom; first, the one to the last line has one closing parenthesis missing ($y(1-\dots) - (1-y) \dots$). Second, the last line has a term \mathbf{b} that is redundant and should be removed.