



ERRATA TO

## Hands-on Signal Analysis with Python

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- p. 3, Eq. (1.1) should read:

The scalar product of two vectors **a** and **b** is defined as

$$\begin{pmatrix} a_x \\ a_y \\ a_z \end{pmatrix} \cdot \begin{pmatrix} b_x \\ b_y \\ b_z \end{pmatrix} = a_x b_x + a_y b_y + a_z b_z = |\mathbf{a}| * |\mathbf{b}| * \cos(\theta)$$

- p. 34, the last paragraph should begin as follows:

- To customize the `jupyter qtconsole` type  
`jupyter console --generate-config`.

This creates the file `jupyter_qtconsole_config.py` in your Jupyter folder. (The Jupyter folder is the subfolder `/.` `jupyter` in your home directory.) In this file you find multiple options to configure your Qt

- p. 42, point “5” To edit files you have to type  
`edit <fileName>`
- p. 60, code segment: not really a mistake, but possibly confusing — semicolons at the end of a Python line make no difference, and can be left away.
- p. 103, ‘Analyze EMG-data’: This exercise is wrongly listed here, it should only be included on p. 120 (Section 6.4.3.)
- p. 108, comment to line 35: “...is use ...” → “is used”
- p. 131, second code-segment:  
All  $(1 - \alpha)/2$  have to be replace with  $1 - \alpha/2$ . So the correct code has to read

```
td = stats.t(df=4)
alpha = 5/100
tval =
td.ppf(1-alpha/2) # Result: tval = 2.78
# or in one line, now for 21 subjects
tval = stats.t(df=20).ppf(1-alpha/2) # Result: tval = 2.09
zval = stats.norm().ppf(1-alpha/2) # Result: zval = 1.96
```

- p 139, Eq. (8.1) defining the *correlation coefficient* should read:

$$r = \sum_{i=0}^{n-1} \left( \frac{x_i - \bar{x}}{\sqrt{\sum_{j=0}^{n-1} (x_j - \bar{x})^2}} * \frac{y_i - \bar{y}}{\sqrt{\sum_{k=0}^{n-1} (y_k - \bar{y})^2}} \right)$$