

# Some L<sup>A</sup>T<sub>E</sub>X utils

jlh

May 2, 2022

This document demos some things I’ve collected for nicer texing. For instance, underlines like this example.

Also, citations with auto links, like this: check out the link in the references when I cite, e.g. MacKay (2003) and Harremoës and Naftali (2007). Links are auto-generated from the `url`, `doi`, etc. fields.

## Simple titled box

For a box like this, use the `kast` environment.

Information theory operators, for things like this:

$$I(X; Y) = D_{\text{KL}}(P_{(X,Y)} \parallel P_X \otimes P_Y) = \mathbb{E}_{p_{(X,Y)}} \left[ \log \frac{p_{(X,Y)}(x,y)}{p_X(x)p_Y(y)} \right] \quad (1)$$

$$= H(X) - H(X | Y) \quad (2)$$

$$= \int_{\mathcal{X} \times \mathcal{Y}} \log \left( \frac{dP_X \otimes P_Y}{dP_{(X,Y)}} \right) dP_X \otimes P_Y \quad (3)$$

## References

- Harremoës, Peter and Tishby Naftali (2007). “[The information bottleneck revisited or how to choose a good distortion measure](#)”. In: *2007 IEEE International Symposium on Information Theory*, pp. 566–570 (cit. on p. 1).
- MacKay, David J. C. (2003). [Information theory, inference and learning algorithms](#). Cambridge university press (cit. on p. 1).