Information Theory — **Tutorial 5**

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- 1. **More inference and prediction:** Carried over from the last tutorial sheet: MacKay Ex. 3.12 and Ex. 3.14, p58.
- 2. **Entropy of more than one variable:** Review the definitions introduced in Chapter 8 of the textbook p138–140. Do Exercise 8.6, p140. And review the answer, p147.
- 3. Life in high-dimensions: MacKay's book Exercise 2.20, p37.

4. More life in high-dimensions (*optional*):

- (a) Where is most of the volume of a (hyper-)cube in N dimensions?
- (b) Read: http://bit-player.org/2011/the-n-ball-game The high-N generalization of the 5 discs in a square is really mind-bending.
- (c) MacKay's book Exercise 6.14, p124.