Please accept these comments on Draft FIPS PUB 202.
Page 1, Section 1, Footnote 4: Consider changing “relatively small” to “sufficiently small”. For example, if the output length for SHAKE128 is $d = 224$, the collision security is 112 bits, which is smaller than 128. Thus, this is an example of an “exception” as alluded to in the footnote. As such, it suggests that an output size of $d = 224$ must therefore be “relatively small”. However, $d = 224$ is the output size of SHA3-224, one of the hashes specified in this very standard, so it would seem somewhat odd to classify this output size as being “relatively small”. A similar discussion is applicable to SHAKE256 with output length $d = 384$ (i.e., the footnote would seem to suggest that $d = 384$ is a “relatively small” output size, when in fact it’s the output size for one of the four hashes specified in the standard).

Various sections: Make sure when defining the state array, the limits of the parameters are $0 \leq x < 5$, $0 \leq y < 5$, and $0 \leq z < w$. Incorrect limits are given in sections 3.1 (last paragraph), 3.1.2 (2nd paragraph), 3.1.3 (definitions of Lane(i,j) and Plane(j)), 3.2.1 (Algorithm 1), 3.2.3 (Algorithm 3), 3.2.4 (Algorithm 4), and 3.2.5 (Algorithm 6).