Errata

Publication I

p. 2299, first paragraph, the principal angles are given by the SVD of $Y^\dagger Z$ not $YZ^\dagger$.

Publication III

The symbol of the border of the spherical cap $C_i(z)$ did not print correctly, as a result both the cap and its border are defined by $C_i(z)$:

- p. 6597, the last equation should be:
  \[ C_i(z) = \{ y \in S^2(1/2) : |y-x_i|^2 = z \}. \]

- p. 6598, the derivation of equation (24) should read:
  \[
  \mathcal{A}(C_i(z) \cap V_i) = \iint_{C_i(z) \cap V_i} \frac{1}{2} \, d\phi_i \\
  = \int_0^z \left( \frac{1}{2} \int_{C_i(z) \cap V_i} d\phi_i \right) \, d\phi_i.
  \]

The pdf of the squared distance $f_{d^2}$ is then obtained by straightforward differentiation:

\[
\frac{d}{dz} (\mathcal{A}(C_i(z) \cap V_i)) = \frac{1}{2} \int_{C_i(z) \cap V_i} d\phi_i,
\]

and finally we have

\[
f_{d^2}(z) = \frac{1}{2\pi} \sum_{i=1}^{N} \int_{C_i(z) \cap V_i} d\phi_i.
\]
The integral in the last equality can be calculated by taking into account
the fact that the discontinuities of \( C_i(z) \cap V_i \) belong to the borders of \( V_i \).

**Publication IV**

- p. 5 Table III, the entries of some codewords are incorrect. A corrected
  version is given in Table 5.4.

- p. 3 Proposition 2, and p. 4 Proposition 4, *totally singular subspaces*
  should be understood as *totally isotropic subspaces*. Singular and isotropic
  subspaces was the terminology used in [14] when considering vector
  spaces over the field of integers modulo 2 and 4, leading to real and
  complex packings, respectively.

- p. 3, last line, the normalization \( \frac{1}{\sqrt{2}} A \) is incorrect, the factor \( \frac{1}{\sqrt{2}} \)
  apply only to the last four codewords of \( A \) and not the first two ones.

**Publication VIII**

- Selection of codewords is not clearly specified in the paper, we provide
  details here:

  – In Fig. 1, as we were comparing coding in different manifolds, the
    codeword selection was performed using the optimal selection that cor-
    respond to maximize the information rate. It follows that the state-
    ment p. 5 “When using this scheme, we have selected the codeword
    minimizing the flag distance \( d_p \) over all combinations of Grassman-
    nian and orthogonalization codewords.” is erroneous.

  – In Fig. 2, the codewords selection was performed with the permutation-
    invariant flag chordal distance \( d_p \).

- Additionally, there are typos on the labelling of Fig. 2: for \( N_t = 4 \), the
  curves corresponds to 1, 2, 3, and 5 feedback bits.