

# Errata list for »Codes on Graphs and More«

Doctoral dissertation by Florian Hug

## Chapter 2: Graphs, Codes, and Codes on Graphs

- 44 eq (2.37)  $\text{sign}(r_t^{(k)}) = \text{sign}(x_t^{(k)}) \rightarrow \text{sign}(r_t^{(k)}) \neq \text{sign}(x_t^{(k)})$
- 54 eq (2.55)  $T + \sum_{j=1}^i \delta_j \rightarrow T + \sum_{j=0}^{i-1} \delta_j$
- 54 Ex 2.6  $\{\delta_i\}_{i=1}^6 = \{\dots\} \rightarrow \{\delta_i\}_{i=0}^5 = \{\dots\}$
- 54 Ex 2.6  $T = \sum_{i=1}^{\lceil 3/2 \rceil} \delta_i = \dots \rightarrow T = \sum_{i=0}^{\lceil 3/2 \rceil - 1} \delta_i = \dots$

## Chapter 3: Voltage Graph-Based QC LDPC Block Codes with Large Girth

- 73 para 2  $(JMc, M((J-2)c + b)) \rightarrow (Jc, (J-2)c + b)$
- 81 last eq  $N_T = \sum_{i=1}^c |\mathcal{T}_{i,\min}| \rightarrow N_T = \sum_{i=0}^{c-1} |\mathcal{T}_{i,\min}|$
- 83 para 1 reordering the columns  $\rightarrow$  reordering the rows
- 101 para 2 BP decoding algorithm  $\rightarrow$  BP decoding algorithm with 60 decoding iterations

## Chapter 4: Woven Graph Codes

- 113 eq (4.23)  $\left( \prod_{i=0}^{s-1} 2^{j_i(h - \hat{m})} \hat{b} 2^{-j_i h \hat{c}} \right) \rightarrow \left( \prod_{i=0}^{s-1} 2^{j_i(h - \hat{m})} \hat{b} 2^{-j_i h \hat{c}} \right)$
- 115 eq (4.26)  $\left( \frac{\hat{c}l}{w/j} \right)^j \rightarrow \left( \frac{\hat{c}M}{w/j} \right)^j$

## Chapter 6: MacWilliams-type Identities for Convolutional Codes

- 159 eq (6.26)  $t = l, l+1, \dots, 2l-1 \rightarrow M = l, l+1, \dots, 2l-1$