

Erratum to the proof of Lemma 10.3.26, page 249

In the sequence of inequations

$$- \sum_{\substack{1 \leq j \leq n \\ a_{i,j} < 0}} |a_{i,j}| \leq (M_{k,n} \cdot y \downarrow^{(\ell)})_i \leq \sum_{\substack{1 \leq j \leq n \\ a_{i,j} \geq 0}} |a_{i,j}|,$$

$(M_{k,n} \cdot y \downarrow^{(\ell)})_i$ must be replaced by $-(M_{k,n} \cdot y \downarrow^{(\ell)})_i$. Alternatively, one can use the following sequence of inequations:

$$\sum_{\substack{1 \leq j \leq n \\ a_{i,j} < 0}} |a_{i,j}| \geq (M_{k,n} \cdot y \downarrow^{(\ell)})_i \geq - \sum_{\substack{1 \leq j \leq n \\ a_{i,j} \geq 0}} |a_{i,j}|.$$

The fact that, for all i , there are at most $1 + \sum_{1 \leq j \leq n} |a_{i,j}|$ possible values for $(M_{k,n} \cdot y \downarrow^{(\ell)})_i$ still follows from these new sequences of inequations. However, to have

$$1 + \sum_{1 \leq j \leq n} |a_{i,j}| \leq 1 + \|M_{k,n}\|,$$

the definition of $\|M_{k,n}\|$ (see Definition 10.3.23) must be modified. Instead of summing up the absolute values in the columns, one must sum up the absolute values in the rows, i.e., the definition of $\|M_{k,n}\|$ should be

$$\|M_{k,n}\| := \max\left\{ \sum_{1 \leq j \leq n} |a_{i,j}| \mid 1 \leq i \leq k \right\}.$$