Strong Gröbner bases and cyclic codes over a finite-chain ring. Errata

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\textbf{Proposition 3.2} Let $R$ be a finite-chain ring, let $G \subset R[x_1, \ldots, x_n] \setminus \{0\}$ be a finite set and $f, h \in R[x_1, \ldots, x_n]$. Then $f$ is strongly reducible wrt. $G$ if and only if $f$ is reducible wrt. $G$.

Page 5, middle:

Next we show that over a principal ideal ring, any two lcm’s are associates. This enables us to define $\text{Spol}(g_1, g_2)$, \textit{the set of S-polynomials of $g_1, g_2 \in R[x_1, \ldots, x_n] \setminus \{0\}$}.

Page 5, line -6:

Any two gcd’s over a principal ideal ring are likewise associates, so we can define $\text{Gpol}(g_1, g_2)$, \textit{the set of G-polynomials of $g_1, g_2 \in R[x_1, \ldots, x_n] \setminus \{0\}$} by generalising [1, Definition 10.9].

\textbf{6 Cyclic codes over a local principal ideal ring}

We now consider (non-zero) cyclic codes of length $n$ over a local principal ideal ring $R$.

\textbf{References}


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