4.3.2 Forms of alternating knots obtained from epipotrochoid curves

Epitrochoid curves can be defined by the following parametric representation

\[
\begin{align*}
x &= (a + b) \cos t - c \cos(a + b)t/b \\
y &= (a + b) \sin t - c \sin(a + b)t/b.
\end{align*}
\]

Adding the coordinate \( z \) to (6), it becomes:

\[
\begin{align*}
x &= (a + b) \cos t - c \cos(a + b)t/b \\
y &= (a + b) \sin t - c \sin(a + b)t/b \\
z &= d \sin et.
\end{align*}
\]