A Knot from AnonMoos

February-07-10
12:36 AM

K = DTCode[16, 8, 20, 14, 2, 6, 18, 10, 4, 12]

DT[16, 8, 20, 14, 2, 6, 18, 10, 4, 12]

<< KnotTheory`

Loading KnotTheory` version of April 20, 2009, 14:18:34.482.
Read more at http://katlas.org/wiki/KnotTheory.

K = DTCode[16, 8, 20, 14, 2, 6, 18, 10, 4, 12]

DTCode[16, 8, 20, 14, 2, 6, 18, 10, 4, 12]
$$J = \text{Jones}[K][q]$$

KnotTheory::credits:

The GaussCode to PD conversion was written by Siddarth Sankaran at the University of Toronto in the summer of 2005.

$$q^2 - 4 q^3 + 10 q^4 - 13 q^5 + 17 q^6 - 18 q^7 + 16 q^8 - 13 q^9 + 8 q^{10} - 4 q^{11} + q^{12}$$

Select[AllKnots[]],

Jones[2][q] = J &

KnotTheory::loading : Loading precomputed data in Jones4Knots.`.

KnotTheory::loading : Loading precomputed data in Jones4Knots11.`.

{}`
Select [AllKnots[]],
Jones[#][q] = \( (J / . \ q \rightarrow 1 / \ q) \ & \)

{Knot[10, 120]}
L = PD[
    X[1, 13, 2, 22], X[3, 14, 4, 15], X[5, 8, 6, 9], X[7, 18, 8, 19],
    X[9, 17, 10, 16], X[11, 2, 12, 3], X[13, 7, 14, 12], X[15, 20, 16, 21],
    X[17, 6, 18, 1], X[19, 5, 20, 4], X[21, 10, 22, 11]
]

PD[X[1, 13, 2, 22], X[3, 14, 4, 15], X[5, 8, 6, 9],
    X[7, 18, 8, 19], X[9, 17, 10, 16], X[11, 2, 12, 3], X[13, 7, 14, 12],
    X[15, 20, 16, 21], X[17, 6, 18, 1], X[19, 5, 20, 4], X[21, 10, 22, 11]]
DrawMorseLink[L]

KnotTheory::credits : MorseLink was added to KnotTheory by Siddharth Sankaran at the University of Toronto in the summer of 2005.

KnotTheory::credits : DrawMorseLink was written by Siddharth Sankaran at the University of Toronto in the summer of 2005.

\[ j = \text{Jones}[L][q] \]

\[ -23 + \frac{5}{q^8} + \frac{13}{q^7} + \frac{23}{q^6} + \frac{31}{q^5} + \frac{37}{q^4} + \frac{36}{q^3} + \frac{33}{q^2} + \frac{15}{q} - 6 - q^2 + q^3 \]

\[ \text{maybe} = \text{Select[AllLinks[]}, \ ( \]
\[ \begin{array}{ll}
\text{quo} &= \text{Factor}[(\text{Jones}[H][q] / j)]; \\
\text{quo} &= 1 \mid \text{quo} = q \mid \text{MatchQ[quo, q^k]} \\
\end{array} \]

\] &] \]

KnotTheory::loading : Loading precomputed data in Jones4Links.

{}

Ooops, silly. L has 11 crossings so it wouldn't be in the tables...