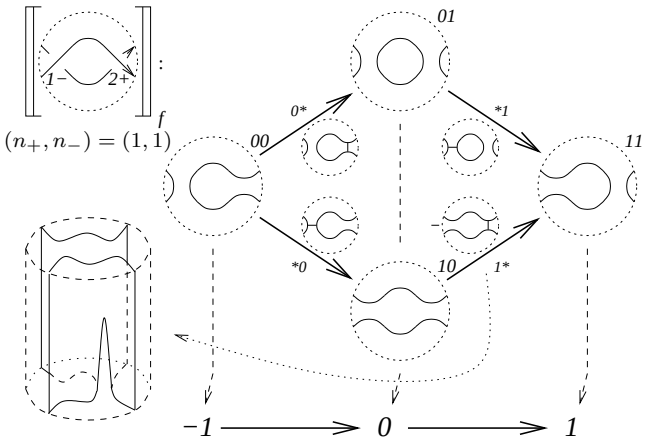
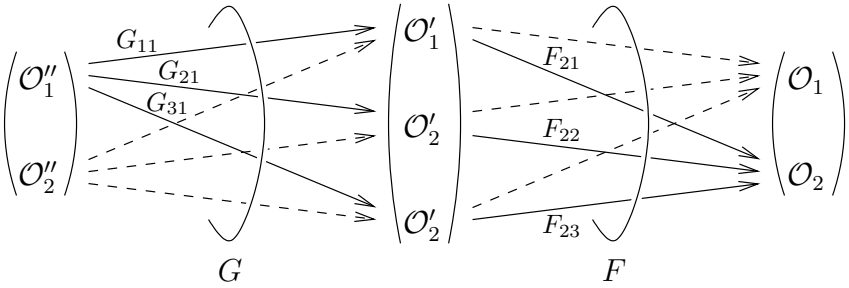
KHOVANOV'S HOMOLOGY FOR TANGLES AND COBORDISMS

DROR BAR-NATAN

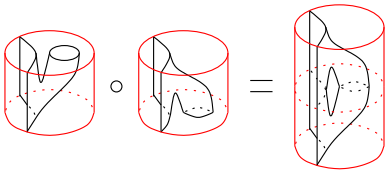


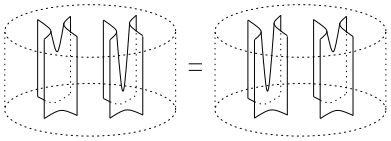


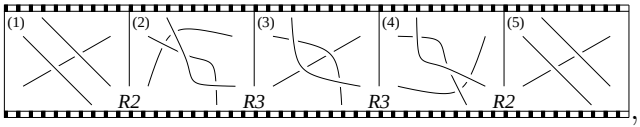
$$C = \left(C^{-n_-} \longrightarrow C^{-n_-+1} \longrightarrow \cdots \longrightarrow C^{n_+} \right)$$

$$\begin{array}{ccccccccc}
\cdots & \longrightarrow & C_0^{r-1} & \xrightarrow{d^{r-1}} & C_0^r & \xrightarrow{d^r} & C_0^{r+1} & \longrightarrow & \cdots \\
 & & \downarrow{\scriptstyle F^{r-1}} & & \downarrow{\scriptstyle F^r} & & \downarrow{\scriptstyle F^{r+1}} & & \\
\cdots & \longrightarrow & C_1^{r-1} & \xrightarrow{d^{r-1}} & C_1^r & \xrightarrow{d^r} & C_1^{r+1} & \longrightarrow & \cdots
\end{array}$$

$$\begin{array}{ccccc}
C_0^{r-1} & \xrightarrow{d^{r-1}} & C_0^r & \xrightarrow{d^r} & C_0^{r+1} \\
\Downarrow{\scriptstyle F^{r-1}} \; \Downarrow{\scriptstyle G^{r-1}} & \overset{h^r}{\swarrow} & \Downarrow{\scriptstyle F^r} \; \Downarrow{\scriptstyle G^r} & \overset{h^{r+1}}{\swarrow} & \Downarrow{\scriptstyle F^{r+1}} \; \Downarrow{\scriptstyle G^{r+1}} \\
C_1^{r-1} & \xrightarrow{d^{r-1}} & C_1^r & \xrightarrow{d^r} & C_1^{r+1}
\end{array}$$







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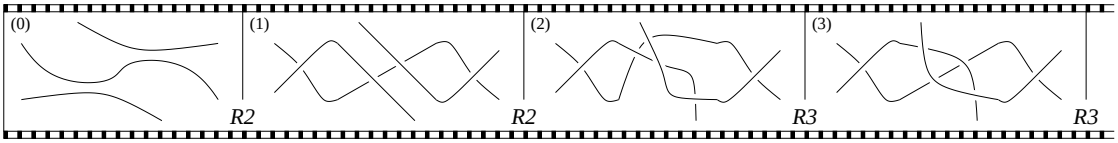

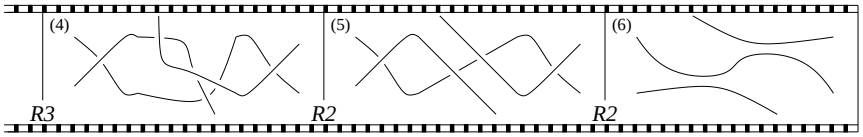

URL: `http://www.math.toronto.edu/~drorbn/Talks/BIRS-0311/`

Date: November 17, 2003.