$K \subset$
S^3
K
B^4
F
K
V
$P \in_g$
(Z)
$^{-1} =$
$(0)A$
$BC, A, C, C \in$
$M_{g \times g}(Z)$
g
Z
$H_1(F)$
$\alpha, \beta \in$
$\mathcal{L}$
$(\alpha, \beta^+) =$
0
$(b_1, ..., b_i)$
$H_2(Y, Z$
$A =$
(b_i, b_y)
$^nAZ^n \cong$
$H_1(Y, Z).$
$|\det A| =$
$\#H_1(Y, Z)$
$1"description, sloped, isomorphic/.style =$
$arsymbol = \cong,]H_1(Y, Z) \times$
$H_1(Y, Z) \longrightarrow$
$QZ-alinkingform$
$^nAZ[u, isomorphic]Z^nAZ[u, isomorphic]$
$(a, b) \mapsto$
$qA^{-1}b^T$
$K \in$
S^1
$\Sigma(K)$
V
K
$H_1(\Sigma(K), Z) \cong$
Z^nAZ
$A =$
$V \times$
V^T
$0 =$
V
0.5! Pushing the Seifert surface in 4-ball.
X
B^4
Σ
X
$H_1(X, Z) =$
0
$H_2(X, Z) \cong$
Z^n
X
$V +$
V^T
0.5! Cycle pushed in 4-ball.
$Y =$
$\Sigma(K)$
$_1(Y, Z) \times$
$H_1(Y, Z) \longrightarrow$