The Postnikov invariant

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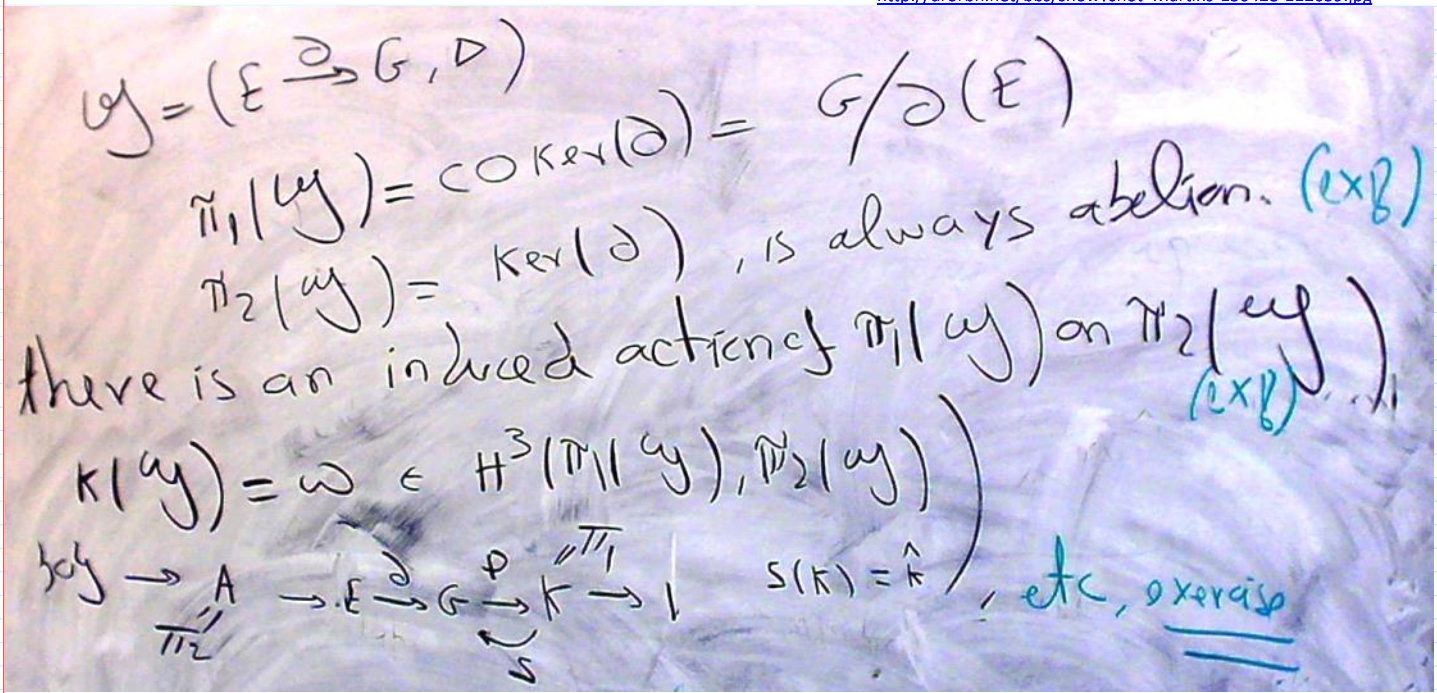
http://drorbn.net/bbs/show?shot=Martins-150428-112639.jpg



$$0 \to \pi_2 \to E \xrightarrow{\partial} G \xrightarrow{p} \pi_1 \to 1$$

is exact. choose β set, choose α set

Need an element of $\mathrm{Hom}(\pi_1^3 \to \pi_2)$:

$$c(g_1,g_2) := \beta\left(\alpha(g_1)\alpha(g_2)\alpha(g_1g_2)^{-1}\right)$$

$$(g_1,g_2,g_3) \longmapsto K(g_1,g_2,g_3) =$$

$$c(g_1,g_2)\cdot c(g_1g_2,g_3)\cdot c(g_1,g_2g_3)^{-1}\cdot \alpha(g_1)\triangleright c(g_2,g_3)^{-1}$$

$$\partial\left(c(g_1,g_2)c(g_1g_2,g_3)\right) = \alpha(g_1)\alpha(g_2)\alpha(g_1g_2)^{-1}\cdot\alpha(g_1g_2)\alpha(g_3)\alpha(g_1g_2g_3)^{-1}$$

$$= \alpha(g_1)\alpha(g_2)\alpha(g_3)\alpha(g_1g_2g_3)^{-1}$$

$$\partial c(g_1,g_2g_3) = \alpha(g_1)\alpha(g_2g_3)\alpha(g_1g_2g_3)^{-1}$$

$$\partial\left(\alpha(g_1)\triangleright\beta\left(\alpha(g_2)\alpha(g_3)\alpha(g_2g_3)^{-1}\right)\right)$$

$$= \alpha(g_1)\alpha(g_2)g(g_3)\alpha(g_2g_3)^{-1}\alpha(g_1)^{-1}$$