Summary

- $G^{-\infty}_{iso}(n) \subset Id + \Psi^{-\infty}_{iso}(n)$

  is a classifying space for K^{-1}.

- $\det : G^{-\infty}_{iso}(n) \longrightarrow \mathbb{C}^*$ induces

  $$c_1 = \frac{1}{2\pi i}\alpha = d \log \det .$$

- $$\begin{array}{ccc} G^{-\infty}_{iso}(n) & \hookrightarrow & G^{0}_{iso}(n) \times_{\det} \mathbb{C} \\ & & \downarrow \\ & & A^{0}_{iso}(n) \longleftarrow L \end{array}$$

  is the determinant bundle of Quillen with $\alpha = \overline{Tr}_H(A^{-1}dA)$ the connection of Bismut-Freed.

Next time: Even K-theory and eta.