BORDERED FLOER HOMOLOGY HOMEWORK 3

ROBERT LIPSHITZ

(1) After today’s lecture, we (hopefully) have enough background for Problems 1, 3 and 4 from Homework 2.

(2) Show that if \( Z_1 \) and \( Z_2 \) are pointed matched circles so that \( F(Z_1) \) and \( F(Z_2) \) are homeomorphic then \( \mathcal{A}(Z_1) \) is derived (Morita) equivalent to \( \mathcal{A}(Z_2) \). (Hint: recall that if \( I_Z \) denotes the mapping cylinder of the identity map of \( F(Z) \) then \( \hat{CFDA}(I_Z) \simeq \mathcal{A}(Z) \) as an \( \mathcal{A}(Z) \)-bimodule. See also [1, Corollary 8.1].)

(3) Define the \( 0 \)-framed split handlebody of genus \( g \), \( \text{HB}_g^0 \), to be the boundary connect sum of \( g \) 0-framed solid tori. Compute \( \hat{CFD}(\text{HB}_g^0) \).

References