Keiju Sono has pointed out to me that Lemmas 3.2 and 3.3 do not lead to an instance of (2.12), because those lemmas have an error of size  $l^{1/2}$  instead of  $l_1^{1/2}$ . The simplest way to fix this is to claim a weaker bound in (2.12) with  $l_1^{1/2}$  replaced by  $l^{1/2}$ , which is the bound that was actually used in the paper. With this change, no other modifications of the paper are necessary.

Alternatively, one could attempt to improve Lemmas 3.2 and 3.3 to replace  $l^{1/2}$  with  $l_1^{1/2}$ , and keep (2.12) as stated in the paper. It seems likely that this is possible, but would require more elaborate alterations.

Typo: In (5.37), it should have  $L_{2al}(s, \chi_{k_1})$  in place of  $L_{2al}(s)$ .