

## Homework Assignment IV

This assignment is significantly more involved than the previous ones, and therefore is worth 15 points, and is due in class on Thu, April 4.

Part A: CFT in two dimensions.

Problems **2.1**, **2.3a**, **2.10** and **2.12** from [Polchinski, Vol. I] (since by now everybody has his/her version of Polchinski's book, I will not copy the problems here explicitly).

Part B: The Polyakov path integral.

Problems **3.2**, **3.8** and **3.9** from [Polchinski, Vol. I] (the last two problems will require some independent study of Section 3.6 of Polchinski).