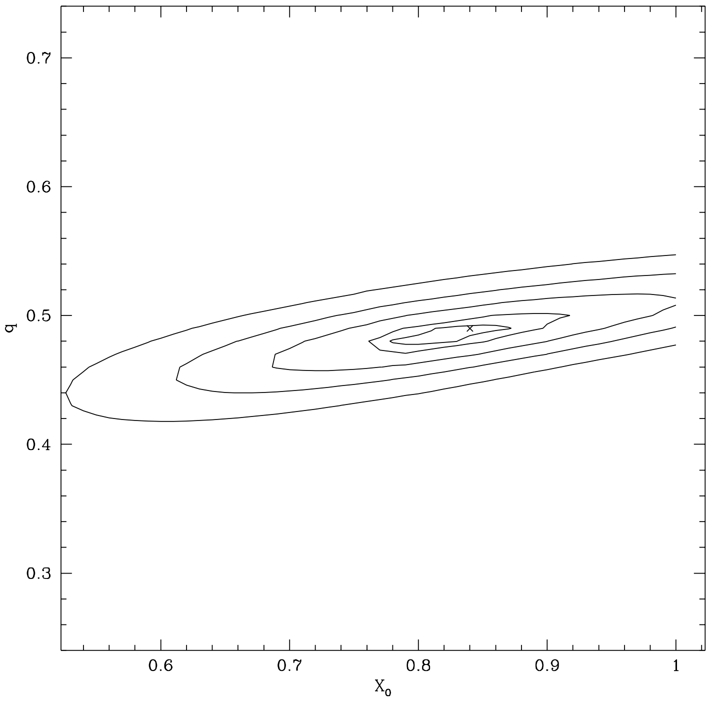

Figure 4.5: A contour plot of the central oxygen mass fraction ($X_{\rm O}$) versus the fractional mass location of the change in the oxygen gradient (q), with M_*, $T_{\rm eff}$, and $M_{\rm He}/M_*$ fixed at their best-fit values. The model with the absolute minimum residuals (identical to the best-fit found by the GA) is marked with an X. The contours are drawn at 1, 3, 10, 25 and 40 times the observational noise.