these are comparable to the ones presented in Figure 15.2. Hence adding the spatial random field to the Poisson GLM does give a lower DIC, but we still have problems (the model produces not enough zeros, too many ones, and larger variation than observed).

Instead of presenting the posterior mean values and 95% credible intervals of the regression parameters here, we present them later in this chapter, together with those obtained by the other models. We will do the same with the hyperparameters.

The model also provides the posterior mean values of the spatial random field. These are the w_1, ..., w_{571} values. Using standard tools for presenting three-dimensional data (e.g. the `levelplot` from the `lattice` package) we can plot them; see Figure 15.4. The contour plot is obtained by interpolating. It is also possible (and recommended) to make a contour plot of the posterior standard deviations of the spatial random field.
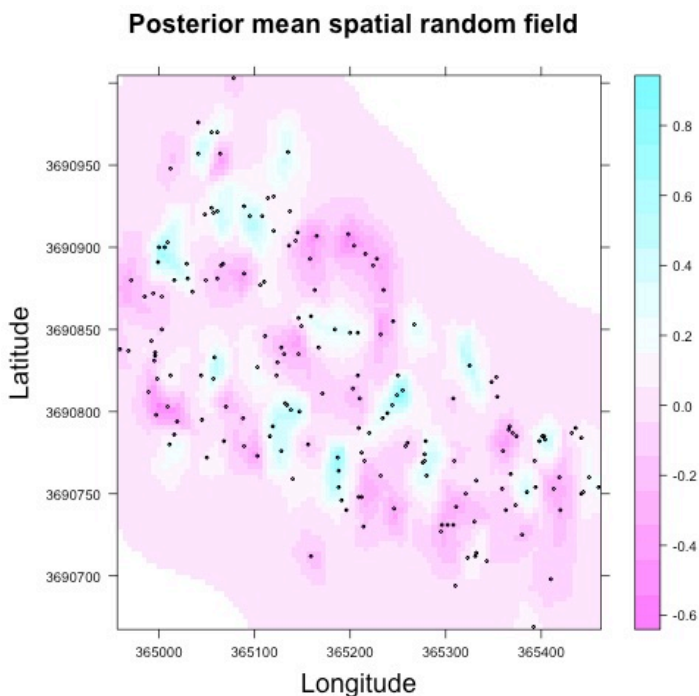
Figure 15.4. Posterior mean values of the spatial random field. These are the w_ks interpolated. There are small hotspots of higher values for the spatial random field.

The spatial random field in Figure 15.4 shows hotspots of positive values of around 0.8. This value does not sound large, but keep in mind that we use a log link, which means that we can write the model as