



Fig. 3.8 a) b-value map using all earthquakes with $M \geq 2$ and $T_{\text{start}} = 0.72$ days. A b-value was determined by sampling the nearest 150 earthquakes for each node of a grid with nodal separation of 0.002^0 (about 0.2 km). The actual number of earthquakes used for determining the value of b at each grid point is between 100 and 150, depending on the completeness of magnitude (M_c) in each node. The b-value was computed using the maximum likelihood method. The values of b are color-coded and plotted at each node. Only the values for nodes where the sampled earthquakes are within 2km distance from the node are represented. The regions R1 and R2 are used for testing the significance of the spatial variation of b-value (see Fig. 3.9 and text). P1 indicates a region with small b-value, as mentioned in the text. b) A p-value map using the same grid and number of earthquakes in each grid-node as in the case of b-value map. The p-value was determined using a maximum likelihood method. Regions R3, R4 and R5 are used for testing the significance of the difference in p-value (see Fig. 3.9 and text). P2 indicates a region with high p values.