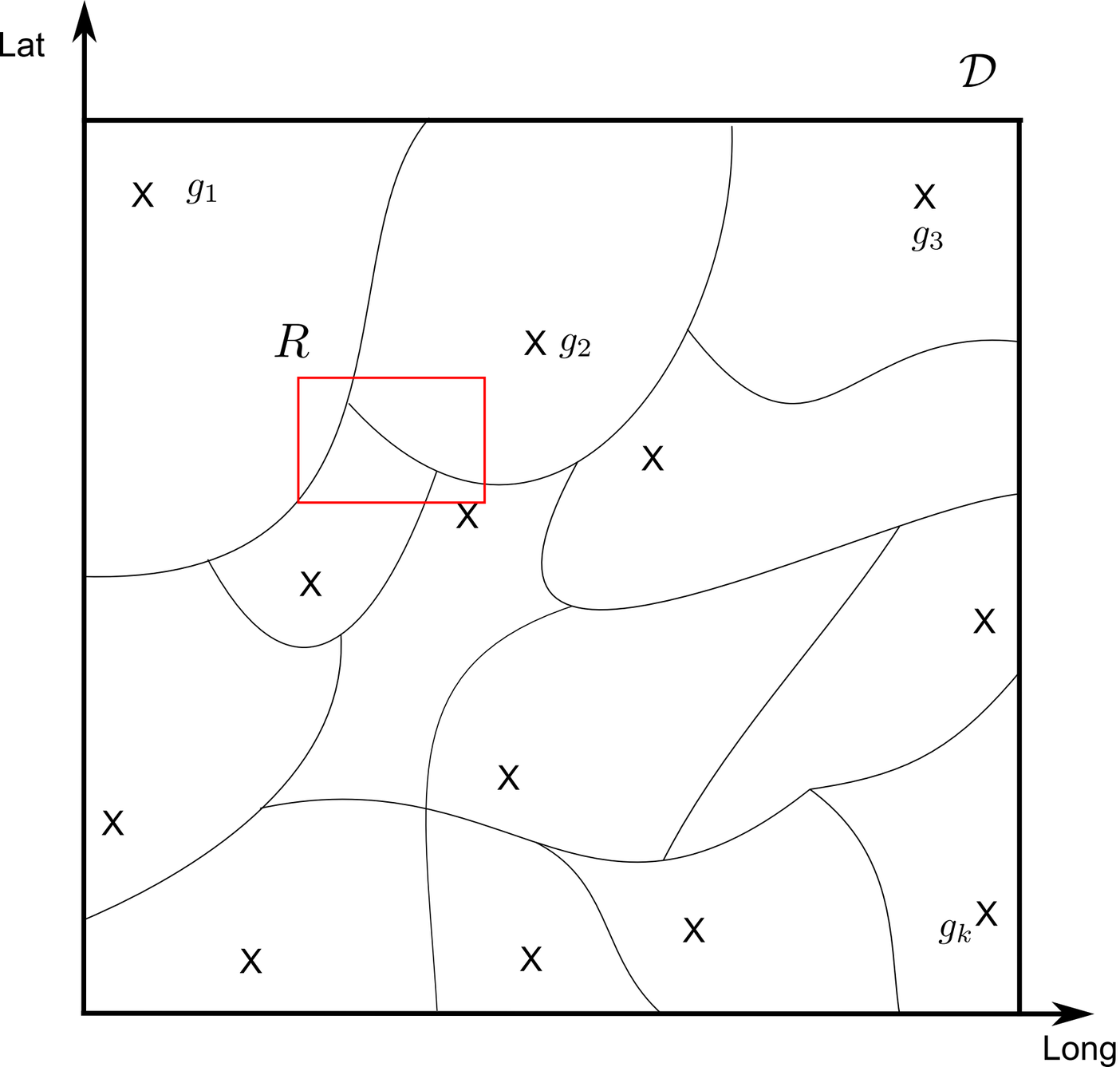

$$Q = \langle R, n, t_{fut}, Q_m \rangle$$

$$R = \{lat_1, long_1, lat_2, long_2\}$$

$$\mathcal{D} = \{k, partition\_type\}$$

$$\mathcal{G} = \{g_1, \ldots, g_k\}$$

$$g_i = \langle \mathbf{S_i}, A_g, p, E, \Sigma \rangle, \ i \in \{1, \ldots, k\}$$