**Priestorové analýzy a modelovanie**

**Practice 4: Kernel density analysis, Geographically weighted regression**

**Point density:**

(https://pro.arcgis.com/en/pro-app/tool-reference/spatial-analyst/point-density.htm)

**Kernel density:**

(https://pro.arcgis.com/en/pro-app/tool-reference/spatial-analyst/kernel-density.htm)

**GWR:**

(https://pro.arcgis.com/en/pro-app/tool-reference/spatial-statistics/geographically-weighted-regression.htm)

**Excerxise:** 1. Creating a geodatabase for exercises called CV5 + data import + definition  
                   coordination systems

2. Set the mask by the *hranica\_sr* layer

3. For input point layer *zrazky\_1961\_1990\_SR* use functions Point and Kernel density with search window of 50, 100 and 200m

4. For input point layer *zrazky\_1961\_1990\_SR* use functions Point and Kernel density with search window of 50, 100 and 200m and set population parameter to Rok (Year)

5. Create raster of predictet rainfall by using layer *zrazky\_1961\_1990\_SR* and *points\_reg\_grid\_500m\_points*

**Task:** Create map outputs (not screenshots) of predicted rainfall, regression coefficient and intercept for JAN to JUN period using GWR