The image contains a diagram illustrating the transformation of a point $S$ in a coordinate system $xOy$ to a new coordinate system $x'Oy'$ through a rotation $R(\theta)$. The transformation involves the following elements:

- The original point $S$ is marked with a black dot.
- The original coordinates are $(x, y)$.
- The rotated coordinates are $(x', y')$.
- The rotation angle is denoted by $\theta$.
- The transformation matrix $R(\theta)$ is applied to the point $S$ to obtain its new coordinates in the rotated system.

Additional vectors and axes are present to aid in understanding the transformation:

- $t_\perp$ is a vector in the original system.
- $o_\perp'$ is a point in the rotated system.
- The arrows indicate the direction of the axes and vectors.

The diagram visually represents the geometric transformation and rotation process.