

$$\begin{aligned}
\sqrt{T} &\leq \frac{R}{\rho} \cdot \frac{\mathbf{W}_f^T \mathbf{W}_T}{\|\mathbf{W}_f\| \|\mathbf{W}_T\|} \\
&= \frac{R}{\rho} \cdot \cos \langle \mathbf{W}_f, \mathbf{W}_T \rangle \\
&\leq \frac{R}{\rho}
\end{aligned}$$

因此有

$$T \leq \frac{R^2}{\rho^2}$$

5, 假设训练样本集为  $D = \{(\vec{x}_1, y_1) = ((0.2, 0.7)^T, 1), (\vec{x}_2, y_2) = ((0.3, 0.3)^T, 1), (\vec{x}_3, y_3) = ((0.4, 0.5)^T, 1), (\vec{x}_4, y_4) = ((0.6, 0.5)^T, 1), (\vec{x}_5, y_5) = ((0.1, 0.4)^T, 1), (\vec{x}_6, y_6) = ((0.4, 0.6)^T, -1), (\vec{x}_7, y_7) = ((0.6, 0.2)^T, -1), (\vec{x}_8, y_8) = ((0.7, 0.4)^T, -1), (\vec{x}_9, y_9) = ((0.8, 0.6)^T, -1), (\vec{x}_{10}, y_{10}) = ((0.7, 0.5)^T, -1)\}$ , 用 Pocket 算法设计分类面。(可借助编程实现, 迭代次数最多 10 次, 需提交每次迭代的结果)

解: 略