Vector Space Model

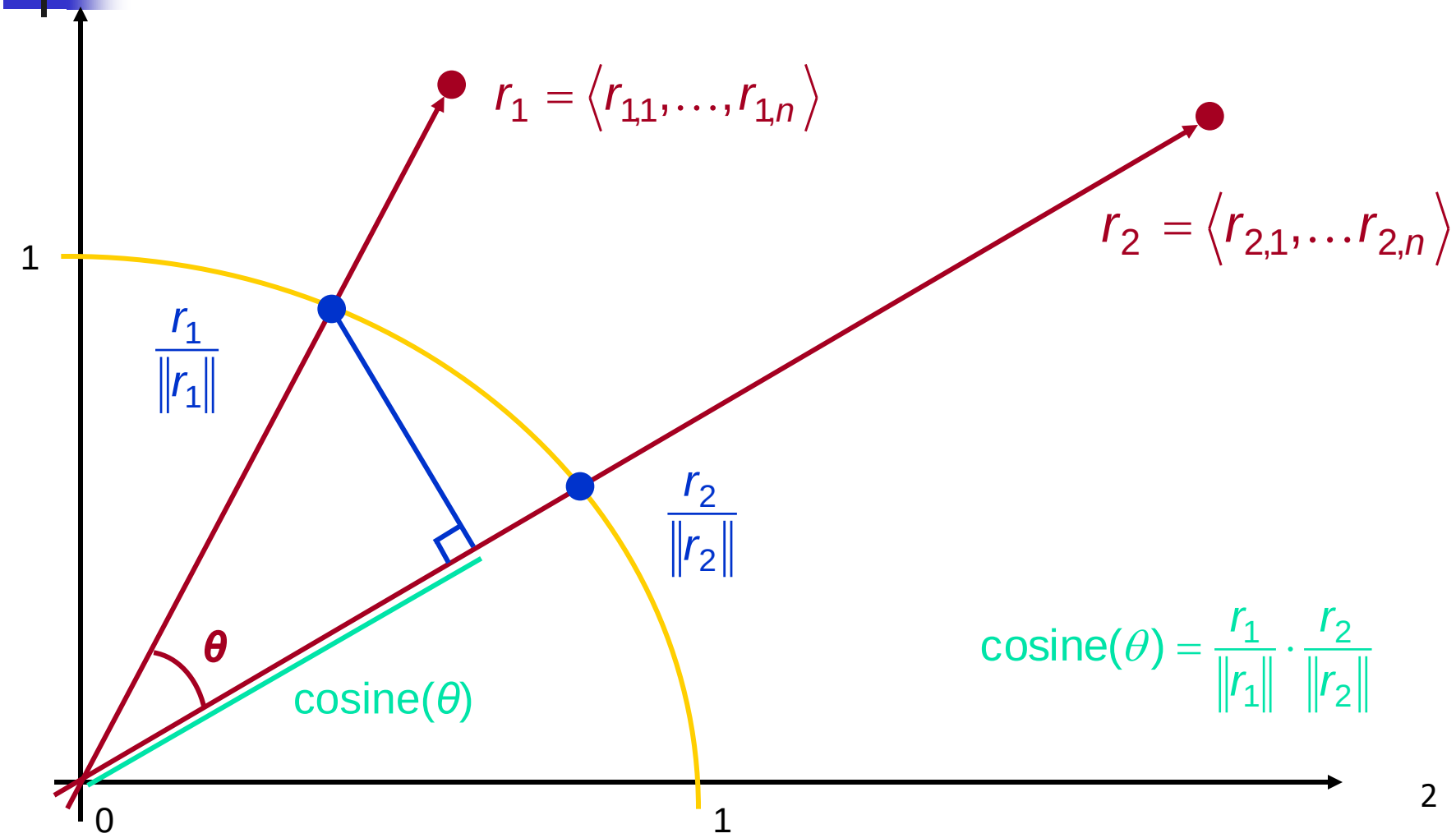
- create vectors, r_1 and r_2, that represent features of R_1 and R_2

$$r_1 = \langle r_{1,1}, \ldots, r_{1,n} \rangle \qquad r_2 = \langle r_{2,1}, \ldots r_{2,n} \rangle$$

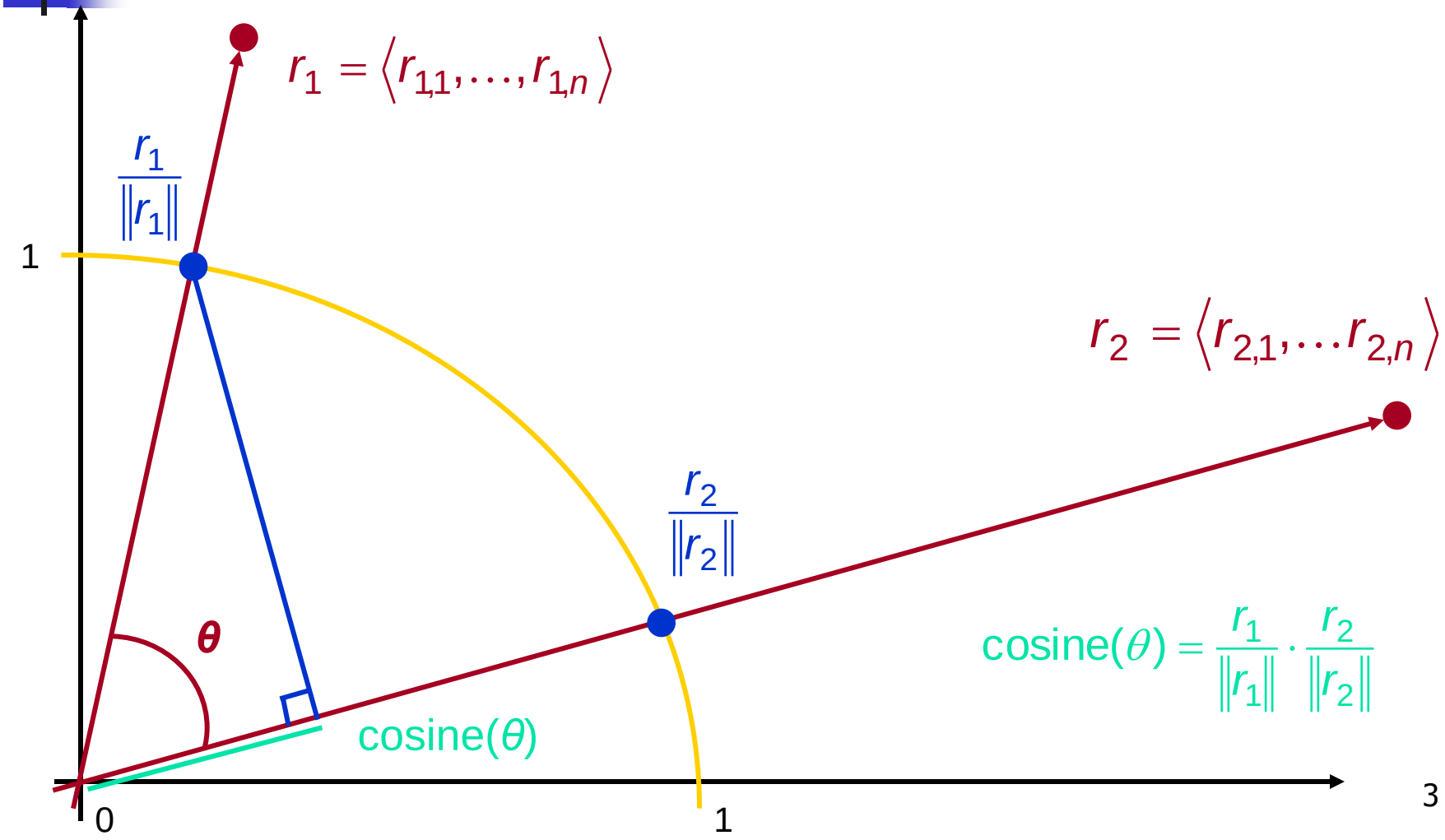
- measure the similarity of R_1 and R_2 by the cosine of the angle θ between r_1 and r_2

$$\text{cosine}(\theta) = \frac{\sum_{i=1}^{n} r_{1,i}\ r_{2,i}}{\sqrt{\sum_{i=1}^{n} (r_{1,i})^2 \ \cdot \ \sum_{i=1}^{n} (r_{2,i})^2}} = \frac{r_1 \cdot r_2}{\sqrt{r_1 \cdot r_1} \cdot \sqrt{r_2 \cdot r_2}} = \frac{r_1 \cdot r_2}{\|r_1\| \cdot \|r_2\|}$$

Vector Space Model



Vector Space Model



Vector Space Model