14.4 Exercises: Some Solutions (November 6, 2011)

14.1. Consider $\mathbf{B} = \begin{pmatrix} 1 & a & r \\ a & 1 & r \\ r & r & 1 \end{pmatrix}$, where a is a given real number, $a^2 \leq 1$. What are the possible values for r such that $\mathbf{B}$ is a correlation matrix? Answer: $r^2 \leq \frac{1+a}{2}$.

• Solution to Ex. 14.1:

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