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## Question: Let D be a diagonal R x R matrix whose diagonal

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Let D be a diagonal  $R \times R$  matrix whose diagonal elements are positive. Show that the maximizer  $\widehat{\beta}$  to

maximize 
$$\|\boldsymbol{D}\boldsymbol{\beta}\|_2^2$$
 subject to  $\|\boldsymbol{\beta}\|_2 = 1$ 

has a 1 in the entry corresponding to the largest diagonal element of D, and is 0 elsewhere.

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## **Expert Answer**



Let D de a cliggoral RXA matrix Whose diagonal element are positive diagnal madrix 18 a madrix in which the entries outside the main diagonal on all zero A digoral matrix is a type of Bquare matrix that Compains zono at non-diagonal elements facility from left upper to oright botton. the manimizer is to monimize 11 DR/12 SUSJECT to 1/A/2 =1 has I in the contry corresponding to the largest diagonal element of D. and zero elsewhere

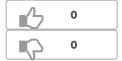
D is Symmetric p is positive detine di=1 d2=1. - dn=1 (1,1) entry is Called the diagonal of the matrin manimize || DB ||2 8 Ubject |1: \$ | 2 |

please thumbs up dear 🙏



0 Comments

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## **Questions viewed by other students**

1)Dorpac Corporation has a dividend yield of 1.2%. Its equity cost of capital is 7.8% and its dividends are expected to grow at a constant rate. a. What is the expected growth rate of Dorpac's dividends? b. What is the expected growth rate of Dorpac's share price? a. What is the expected growth rate of Dorpac's dividends? a. The growth rate will be %. (Round to one decimal...

See answer 94% (31 ratings)

Open and Shorted Transmission Lines. The two configurations in Figure 14.49 are given. The lines are lossless with air as insulator between the lines and operate at 300 MHz. The voltage of the generator is 12 V (a) Calculate the current supplied by the generator in Figure 14.49a (b) Calculate the current supplied by the generator in Figure 14.49b (c) How much power does the...

See answer

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