MATLAB File Help: sdpvar View code for sdpvar Default Topics

sdpvar

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sdpvar Create symbolic decision variable

   You can create a sdpvar variable by:
     X = sdpvar(n)               Symmetric nxn matrix
     X = sdpvar(n,n)             Symmetric nxn matrix
     X = sdpvar(n,m)             Full nxm matrix (n~=m)

   Definition of multiple scalars can be simplified
     sdpvar x y z w

   The parametrizations supported are
     X = sdpvar(n,n,'full')      Full nxn matrix
     X = sdpvar(n,n,'symmetric') Symmetric nxn matrix
     X = sdpvar(n,n,'diagonal')  Diagonal matrix
     X = sdpvar(n,n,'toeplitz')  Symmetric Toeplitz
     X = sdpvar(n,n,'hankel')    Unsymmetric Hankel (zero below the first anti-diagonal)
     X = sdpvar(n,n,'rhankel')   Symmetric Hankel
     X = sdpvar(n,n,'skew')      Skew-symmetric
     X = sdpvar(n,n,'diagonal')  Diagonal

   The letters 'sy','f','ha', 't' and 'sk' are searched for in the third argument
   hence sdpvar(n,n,'toeplitz') gives the same result as sdpvar(n,n,'t')

   Only square Toeplitz and Hankel matries are supported

   A scalar is defined as a 1x1 matrix

   Higher-dimensional matrices are also supported, although this currently
   is an experimental feature with limited use. The type flag applies to
   the lowest level slice.

     X = sdpvar(n,n,n,'full')      Full nxnxn matrix

   In addition to the matrix type, a fourth argument
   can be used to obtain a complex matrix. All the
   matrix types above apply to a complex matrix, and
   in addition a Hermitian type is added

     X = sdpvar(n,n,'hermitian','complex') Complex Hermitian nxn matrix (X=X'=conj(X.'))

   The other types are obtained as above
     X = sdpvar(n,n,'symmetric','complex') Complex symmetric nxn matrix (X=X.')
     X = sdpvar(n,n,'full','complex')      Complex full nxn matrix
     ... and the same for Toeplitz, Hankel and skew-symmetric
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See also

intvar, binvar, methods('sdpvar'), see

Overloaded methods:

ndsdpvar/sdpvar constraint/sdpvar blkvar/sdpvar