

Module: tf.linalg

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Defined in [tensorflow/python/ops/linalg_ns.py](#).

Public API for tf.linalg namespace.

Functions

[band_part\(...\)](#) : Copy a tensor setting everything outside a central band in each innermost matrix

[cholesky\(...\)](#) : Computes the Cholesky decomposition of one or more square matrices.

[cholesky_solve\(...\)](#) : Solves systems of linear eqns $\mathbf{A} \mathbf{X} = \mathbf{RHS}$, given Cholesky factorizations.

[det\(...\)](#) : Computes the determinant of one or more square matrices.

[diag\(...\)](#) : Returns a batched diagonal tensor with a given batched diagonal values.

[diag_part\(...\)](#) : Returns the batched diagonal part of a batched tensor.

[eigh\(...\)](#) : Computes the eigen decomposition of a batch of self-adjoint matrices.

[eigvalsh\(...\)](#) : Computes the eigenvalues of one or more self-adjoint matrices.

[einsum\(...\)](#) : A generalized contraction between tensors of arbitrary dimension.

[eye\(...\)](#) : Construct an identity matrix, or a batch of matrices.

[inv\(...\)](#) : Computes the inverse of one or more square invertible matrices or their

[logdet\(...\)](#) : Computes log of the determinant of a hermitian positive definite matrix.

[lstsq\(...\)](#) : Solves one or more linear least-squares problems.

[norm\(...\)](#) : Computes the norm of vectors, matrices, and tensors.

[qr\(...\)](#) : Computes the QR decompositions of one or more matrices.

[set_diag\(...\)](#) : Returns a batched matrix tensor with new batched diagonal values.

[slogdet\(...\)](#) : Computes the sign and the log of the absolute value of the determinant of

[solve\(...\)](#) : Solves systems of linear equations.

[svd\(...\)](#) : Computes the singular value decompositions of one or more matrices.

[tensordot\(...\)](#) : Tensor contraction of a and b along specified axes.

[trace\(...\)](#) : Compute the trace of a tensor \mathbf{x} .

[transpose\(...\)](#) : Transposes last two dimensions of tensor \mathbf{a} .

`triangular_solve(...)` : Solves systems of linear equations with upper or lower triangular matrices by

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