

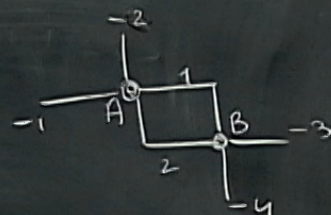
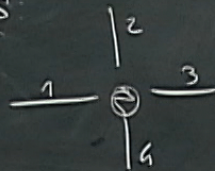
Title: Tutorial: Introduction to Tensor Network methods

Date: Jun 19, 2017 03:45 PM

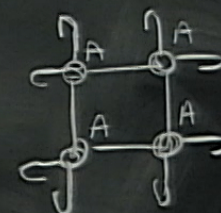
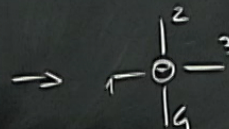
URL: <http://pirsa.org/17060066>

Abstract:

Conventions

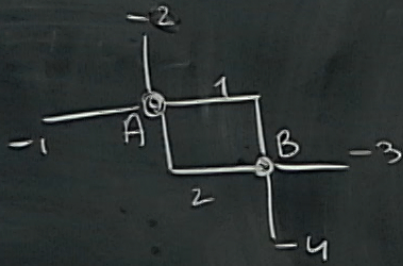
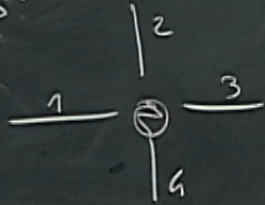


$$= \text{ncn}((A, B), ([-1, -2, 1, 2], [2, 1, -3, -4]))$$

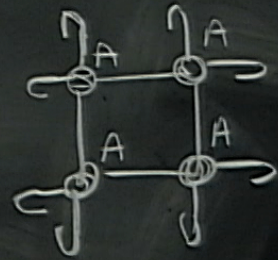
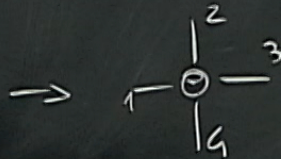


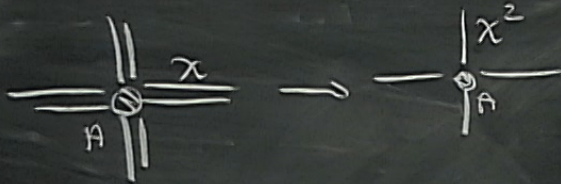
WARNING: FOR $(i-1)$ MODULO N , USE $(i-1+N) \% N$

conventions:



$$= \text{ncan}((A, B), ([-1, -2, 1, 2], [2, 1, -3, -4]))$$



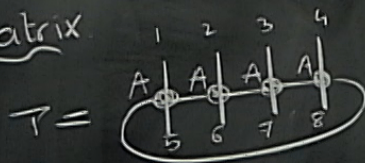


$$A = \text{reshape}(A, x^2, x^2, x^2, x^2)$$

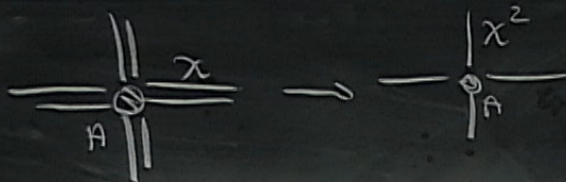


$$U, S, V = \text{tensorsvd}(A, [1, 2], [3, 4])$$

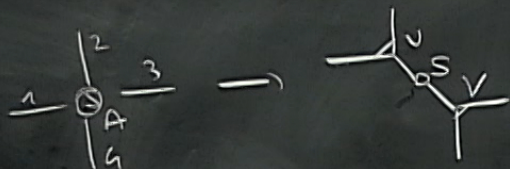
Transfer matrix



$$eS, - = \text{tensoreig}(T, [1, 2, 3, 4], [5, 6, 7, 8]; \text{hermitian} = \text{False})$$

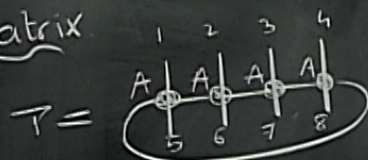


$$A = \text{reshape}(A, x^2, x^2, x^2, x^2)$$



$$U, S, V = \text{tensorsvd}(A, [1, 2], [3, 4])$$

Transfer matrix



$$es, - = \text{tensoreig}(T, [1, 2, 3, 4], [5, 6, 7, 8]; \text{hermitian} = \text{False})$$

$$0, 0.125, 1, -$$