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Title: Jacket Matrix coding in Access Network

Let a square matrix $[J]_{m\times m}=\left[J_{ij}\right]_{m\times m}$. If its inverse matrix is obtained simply by an element-wise inverse, i.e., like $[J]_{m\times m}^{-1}=\frac{1}{C}\left[\frac{1}{J_{ij}}\right]_{m\times m}^{T}$, for $1\le i,j\le m$, where C is a nonzero constant, then we call matrix $[J]_{N\times N}$ a Jacket matrix, such as

$$[J]_m=\begin{bmatrix} j_{0,0} & j_{0,1} & \cdots & j_{0,m-1} \\ j_{1,0} & j_{1,1} & \cdots & j_{1,m-1} \\ \vdots & \vdots & \ddots & \vdots \\ j_{m-1,0} & j_{m-1,1} & \cdots & j_{m-1,m-1} \end{bmatrix}, \quad \text{and its inverse is} \quad [J]_m^{-1}=\begin{bmatrix} 1/j_{0,0} & 1/j_{0,1} & \cdots & 1/j_{0,m-1} \\ 1/j_{1,0} & 1/j_{1,1} & \cdots & 1/j_{1,m-1} \\ \vdots & \vdots & \ddots & \vdots \\ 1/j_{m-1,0} & 1/j_{m-1,1} & \cdots & 1/j_{m-1,m-1} \end{bmatrix}^T,$$

where C is the normalized value for this matrix, and T is the transpose. Jacket matrix is very useful in mobile signal processing, sequence design, quantum code design and many other applications.

Talking about as shown:

1. Wireless Network for Clod Computing based on Jacket Matrices.
2. Fourier: DCT/DFT/Wavelet.
3. MIMO Singular Value Decomposition channel.
4. PN sequence.
5. Eigenvalue Decomposition of Jacket Matrices.

Available Online: http://en.wikipedia.org/wiki/Jacket_matrix

http://en.wikipedia.org/wiki/Category:Matrices

http://en.wikipedia.org/wiki/User:Leejacket