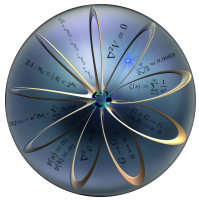

planetmath.org

Math for the people, by the people.

Loewner ordering

Canonical name	LoewnerOrdering
Date of creation	2013-03-22 14:40:15
Last modified on	2013-03-22 14:40:15
Owner	mathcam (2727)
Last modified by	mathcam (2727)
Numerical id	4
Author	mathcam (2727)
Entry type	Definition
Classification	msc 40A30
Defines	Loewner order

Let H be a Hilbert space, and let $X, Y \in \mathrm{Sym}(E)$ be symmetric operators on H.

We define the Loewner order $<_F$ on $\mathrm{Sym}(E)$ by declaring $X <_F Y$ if $X - Y$ is a positive semidefinite invertible bounded operator on H, and $X <_F Y$ if $X - Y$ is a positive semidefinite invertible bounded operator on H.