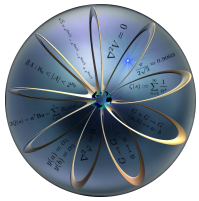

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comparison of filters

Canonical name	ComparisonOfFilters
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Classification	msc 54A99
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Defines	finer
Defines	coarser
Defines	strictly finer
Defines	strictly coarser
Defines	comparable

Let $\mathbb{F}_1$ and $\mathbb{F}_2$ be two filters on the same set. The following terminology is commonly used to describe the relation of $\mathbb{F}_1$ to $\mathbb{F}_2$:

$\mathbb{F}_2$ is said to be *finer* than $\mathbb{F}_1$ if $\mathbb{F}_1 \subseteq \mathbb{F}_2$.

$\mathbb{F}_2$ is said to be *coarser* than $\mathbb{F}_1$ if $\mathbb{F}_1 \supseteq \mathbb{F}_2$.

$\mathbb{F}_2$ is said to be *strictly finer* than $\mathbb{F}_1$ if $\mathbb{F}_1 \subset \mathbb{F}_2$.

$\mathbb{F}_2$ is said to be *strictly coarser* than $\mathbb{F}_1$ if $\mathbb{F}_1 \supset \mathbb{F}_2$.

$\mathbb{F}_1$ and $\mathbb{F}_2$ are said to be *comparable* if either $\mathbb{F}_1 \subseteq \mathbb{F}_2$ or $\mathbb{F}_1 \supseteq \mathbb{F}_2$.