Bold maths with bm

This is actually pretty simple. Within maths you may use the `\mathXX` with `XX` = `rm`, `sf`, etc... command to get the various text fonts in maths mode. This is good because vectors in maths are often displayed with upright bold symbols. For example:

$$\vec{M} = \mathbf{M} = (M_x, M_y, M_z)$$

So people get the idea that `\mathbf` is the way to get bold symbols in maths mode. However, what happens when you try Greek in there?
`$\mathbf{\xi}$` = ξ, i.e. it doesn't work. That *xi* is not bold!

The same thing happens if there is no bold version of the font we've chosen for text mode (for example, Knuth's Concrete font, available in scalable Type 1 format in the CM-Super font package). We want instead a command which accesses the bold version of our *maths* font. The bm package provides the `bm` command for exactly this purpose:

Command	Output
`${a}$`	a
`$\mathbf{a}$`	$\mathbf{a}$
`$\bm{a}$`	$\boldsymbol{a}$
`${\xi}$`	ξ
`$\mathbf{\xi}$`	ξ
`$\bm{\xi}$`	$\boldsymbol{\xi}$

And there you have it. This command will also do things like make bold centred dots ($\cdot$) for vector dot multiplication, or bold integral signs ($\int$) if you really feel inclined.