

# The medmath package

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## 1 The mediummath option in nccmath package

There are several problems with mediummath option in nccmath package.

1. The big operators in superscripts and subscripts are too large.

```
\[A^{\sum_{0}^{1}x}=B\]
```

$$A\sum_0^1x=B$$

2. The definite integrals inside cases environment sometimes cause infinite loops.

```
\[\begin{cases}a&\int_1^t\end{cases}\]
```

3. The `\oiint` operators are not scaled to medium size.

```
\[\oiint_{\Sigma}xyzdS=\frac{\sqrt{3}}{120}\]
```

$$\oiint_{\Sigma}xyzdS=\frac{\sqrt{3}}{120}$$

## 2 The medmath package

The medmath package started as a fork of mediummath code in nccmath package, aiming to provide more stable and flexible medium-size math commands.

1. The big operators in superscripts and subscripts are in medium size.

```
\[A^{\sum_{0}^{1}x}=B\]
```

$$A\sum_0^1x=B$$

2. The definite integrals inside cases environment always work.

```
\[\begin{cases}a&\int_1^t\end{cases}\]
```

$$\left\{a\int_1^t\right.$$

3. The `\oiint` operators are scaled to medium size.

```
\[\oiint_{\Sigma}xyzdS=\frac{\sqrt{3}}{120}\]
```

$$\oiint_{\Sigma}xyzdS=\frac{\sqrt{3}}{120}$$