Test of the overarrows package with all options

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1 Loading the package with many options

```
\usepackage[
old-arrows, esvecth, tikz, pstarrows, subscripts, allcommands, debug
]{overarrows}
```

2 Options `old-arrows` and `allcommands`

```
\TestOverArrow*{overrightarrow}
```

Test of `\overrightarrow` and `\overrightarrow*` macros

`\overrightarrow` for different math styles

\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$
$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$

`\overrightarrow` kerning

$$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}} \qquad \overrightarrow{i_0} \qquad \overrightarrow{v} = \overrightarrow{v_x} + \overrightarrow{v_y} + \overrightarrow{v_z} = v_x\,\overrightarrow{\imath} + v_y\,\overrightarrow{\jmath} + v_z\,\overrightarrow{k}$$

`\overrightarrow*` kerning

$$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}} \qquad \overrightarrow{i_0} \qquad \overrightarrow{v} = \overrightarrow{v_x} + \overrightarrow{v_y} + \overrightarrow{v_z} = v_x\,\overrightarrow{\imath} + v_y\,\overrightarrow{\jmath} + v_z\,\overrightarrow{k}$$

```
\NewOverArrowCommand{amsvec}{amsmath, end={\rightarrow}, shift left=2}
\TestOverArrow*{amsvec}
```

Test of \amsvec and \amsvec* macros

\amsvec for different math styles

\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$
$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$

\amsvec kerning

$$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}} \qquad \overrightarrow{\imath}_0 \qquad \overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\,\overrightarrow{\imath} + v_y\,\overrightarrow{\jmath} + v_z\,\overrightarrow{k}$$

\amsvec* kerning

$$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}} \qquad \overrightarrow{\imath}_0 \qquad \overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\,\overrightarrow{\imath} + v_y\,\overrightarrow{\jmath} + v_z\,\overrightarrow{k}$$

3 Option esvech

```
\NewOverArrowCommand{esvec}{esvect}
\TestOverArrow*{esvec}
```

Test of \esvec and \esvec* macros

\esvec for different math styles

\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\vec{v}$	$\vec{v}$	$\vec{v}$	$\vec{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$
$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$

\esvec kerning

$$\vec{t}_{\vec{u}\,\vec{v}} \qquad \vec{\imath}_0 \qquad \vec{v} = \vec{v}_x + \vec{v}_y + \vec{v}_z = v_x\,\vec{\imath} + v_y\,\vec{\jmath} + v_z\,\vec{k}$$

\esvec* kerning

$$\vec{t}_{\vec{u}\,\vec{v}} \qquad \vec{\imath}_0 \qquad \vec{v} = \vec{v}_x + \vec{v}_y + \vec{v}_z = v_x\,\vec{\imath} + v_y\,\vec{\jmath} + v_z\,\vec{k}$$

4 Option `tikz`

```
\NewOverArrowCommand[tikz]{tikzvec}{}
\TestOverArrow*{tikzvec}
```

Test of \tikzvec and \tikzvec* macros

\tikzvec for different math styles

\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$
$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$

\tikzvec kerning

$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}} \quad \overrightarrow{i}_0 \quad \overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\overrightarrow{i} + v_y\overrightarrow{\jmath} + v_z\overrightarrow{k}$

\tikzvec* kerning

$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}} \quad \overrightarrow{i}_0 \quad \overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\overrightarrow{i} + v_y\overrightarrow{\jmath} + v_z\overrightarrow{k}$

```
\NewOverArrowCommand[tikz]{thinnertikzvec}{%
  thinner,
}
\NewOverArrowCommand[tikz]{thickertikzvec}{%
  line thickness={2\overarrowthickness},
}

$$ \thinnertikzvec{v} \qquad \tikzvec{v} \qquad \thickertikzvec{v} $$
```

$\overrightarrow{v} \qquad \overrightarrow{v} \qquad \overrightarrow{v}$

```
\NewOverArrowCommand[tikz]{tikzoptvec}{%
  tikz options={line width=2\overarrowthickness},
  path options={arrows={<->}},
  path={(0,0)--(0.5,0.05)},
}
\TestOverArrow*{tikzoptvec}
```

Test of \tikzoptvec and \tikzoptvec* macros

\tikzoptvec for different math styles

\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overleftrightarrow{v}$	$\overleftrightarrow{v}$	$\overleftrightarrow{v}$	$\overleftrightarrow{v}$
$\overleftrightarrow{AB}$	$\overleftrightarrow{AB}$	$\overleftrightarrow{AB}$	$\overleftrightarrow{AB}$
$\overleftrightarrow{\text{grad}}$	$\overleftrightarrow{\text{grad}}$	$\overleftrightarrow{\text{grad}}$	$\overleftrightarrow{\text{grad}}$
$\overleftrightarrow{my\ long\ vector}$	$\overleftrightarrow{my\ long\ vector}$	$\overleftrightarrow{my\ long\ vector}$	$\overleftrightarrow{my\ long\ vector}$

\tikzoptvec kerning

$\overleftrightarrow{t}\overleftrightarrow{u}\overleftrightarrow{v}$ $\overleftrightarrow{\imath_0}$ $\overleftrightarrow{v} = \overleftrightarrow{v_x} + \overleftrightarrow{v_y} + \overleftrightarrow{v_z} = v_x\overleftrightarrow{\imath} + v_y\overleftrightarrow{\jmath} + v_z\overleftrightarrow{k}$

\tikzoptvec* kerning

$\overleftrightarrow{t}\overleftrightarrow{u}\overleftrightarrow{v}$ $\overleftrightarrow{\imath_0}$ $\overleftrightarrow{v} = \overleftrightarrow{v_x} + \overleftrightarrow{v_y} + \overleftrightarrow{v_z} = v_x\overleftrightarrow{\imath} + v_y\overleftrightarrow{\jmath} + v_z\overleftrightarrow{k}$

```
\NewOverArrowCommand[tikz]{tikzaddoptvec}{%
  add tikz options={blue},
  add path options={thick},
  arrows={->>}, min length=20,
}
\TestOverArrow*{tikzaddoptvec}
```

Test of \tikzaddoptvec and \tikzaddoptvec* macros

\tikzaddoptvec for different math styles

\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$
$\overrightarrow{\mathit{my\ long\ vector}}$	$\overrightarrow{\mathit{my\ long\ vector}}$	$\overrightarrow{\mathit{my\ long\ vector}}$	$\overrightarrow{\mathit{my\ long\ vector}}$

\tikzaddoptvec kerning

$\overrightarrow{t}_{\overrightarrow{u}^{\overrightarrow{v}}} \quad \overrightarrow{l}_0 \quad \overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\,\overrightarrow{i} + v_y\,\overrightarrow{j} + v_z\,\overrightarrow{k}$

\tikzaddoptvec* kerning

$\overrightarrow{t}_{\overrightarrow{u}^{\overrightarrow{v}}} \quad \overrightarrow{l}_0 \quad \overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\,\overrightarrow{i} + v_y\,\overrightarrow{j} + v_z\,\overrightarrow{k}$

```
\NewOverArrowCommand[tikz]{tikcodevec}{%
  tikz command={\draw[Circle-Circle](0,0).. controls (0.5,0.3).. (1,0);},
  shift left=-2, space after arrow=0.2ex,
}
\TestOverArrow*{tikcodevec}
```

Test of \tikcodevec and \tikcodevec* macros

\tikcodevec for different math styles

\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
v	v	v	v
AB	AB	AB	AB
grad	grad	grad	grad
my long vector	*my long vector*	*my long vector*	*my long vector*

\tikcodevec kerning

$t\,u\,v$ $\quad i_0 \quad v = v_x + v_y + v_z = v_x i + v_y j + v_z k$

\tikcodevec* kerning

$t\,u\,v$ $\quad i_0 \quad v = v_x + v_y + v_z = v_x i + v_y j + v_z k$

5 Option pstarrows

```
\NewOverArrowCommand[picture]{picvec}{}
\TestOverArrow*{picvec}
```

Test of \picvec and \picvec* macros

\picvec for different math styles

\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$
$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$

\picvec kerning

$$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}} \qquad \overrightarrow{\imath}_0 \qquad \overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\,\overrightarrow{\imath} + v_y\,\overrightarrow{\jmath} + v_z\,\overrightarrow{k}$$

\picvec* kerning

$$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}} \qquad \overrightarrow{\imath}_0 \qquad \overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\,\overrightarrow{\imath} + v_y\,\overrightarrow{\jmath} + v_z\,\overrightarrow{k}$$

6 Option `subscripts`

```
\NewOverArrowCommand{subvec}{min length=30}
\NewOverArrowCommand{nosubvec}{min length=30, detect subscripts=false}
\TestOverArrow*{subvec}
\TestOverArrow*{nosubvec}
```

Test of \subvec and \subvec* macros

\subvec for different math styles

\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$
$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$

\subvec kerning

$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}}$ $\overrightarrow{\imath}_0$ $\overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\,\overrightarrow{\imath} + v_y\,\overrightarrow{\jmath} + v_z\,\overrightarrow{k}$

\subvec* kerning

$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}}$ $\overrightarrow{\imath}_0$ $\overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\,\overrightarrow{\imath} + v_y\,\overrightarrow{\jmath} + v_z\,\overrightarrow{k}$

Test of \nosubvec and \nosubvec* macros

\nosubvec for different math styles

\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$	$\overrightarrow{\mathrm{grad}}$
$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my\ long\ vector}$

\nosubvec kerning

$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}}$ $\overrightarrow{\imath}_0$ $\overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\,\overrightarrow{\imath} + v_y\,\overrightarrow{\jmath} + v_z\,\overrightarrow{k}$

\nosubvec* kerning

$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}}$ $\overrightarrow{\imath}_0$ $\overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_y + \overrightarrow{v}_z = v_x\,\overrightarrow{\imath} + v_y\,\overrightarrow{\jmath} + v_z\,\overrightarrow{k}$