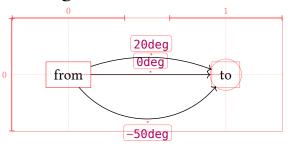
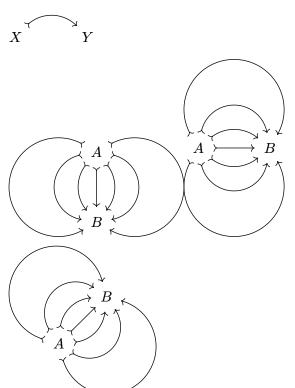
### **Contents**

Arc edges 2			
Matching math arrows 3			
Double and triple lines 4			
Arrow head shorthands 5			
Symbol arrow aliases 6			
Bending arrows			
Fine mark angle corrections 8			
Defocus adjustment			
Label side 10			
Automatic label placement 11			
Crossing connectors			
edge() argument shorthands 13			
Diagram-level options 14			
CeTZ integration			
Corner edges 16			
Double node strokes			
Custom node sizes			
Node inset and outset 19			
Example			
Axes configuration			
Implicit from and to points 22			
Edge positional arguments			
Math-mode diagrams24			
Nodes in math-mode			
Relative node coordinates			
Edge paths			
Dashed edge paths			
Custom node shapes			
Intersection finding			
Off-center edges			
Edge shift			
Label fill			
Line decorations			

# Arc edges

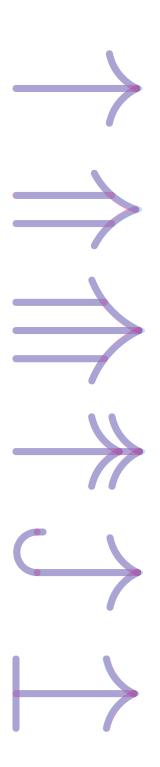




# Matching math arrows

Compare to  $\rightarrow$ ,  $\Rightarrow$ ,  $\Rightarrow$ ,  $\rightarrow$ ,  $\hookrightarrow$ ,  $\mapsto$ .

Our output versus reference symbol in default math font.



## Double and triple lines

Diagram  $A \xrightarrow{f} B$  and equation  $A \to B$ .

Diagram  $A \xrightarrow{f} B$  and equation  $A \Rightarrow B$ .

Diagram  $A \xrightarrow{f} B$  and equation  $A \Rightarrow B$ 

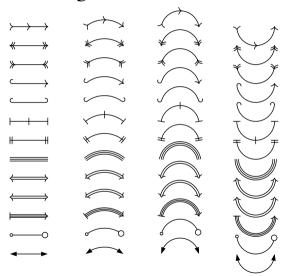
Diagram  $A \Longrightarrow^f B$  and equation  $A \Rightarrow B$ .

#### Arrow head shorthands

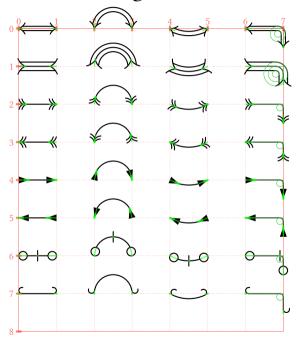
## Symbol arrow aliases

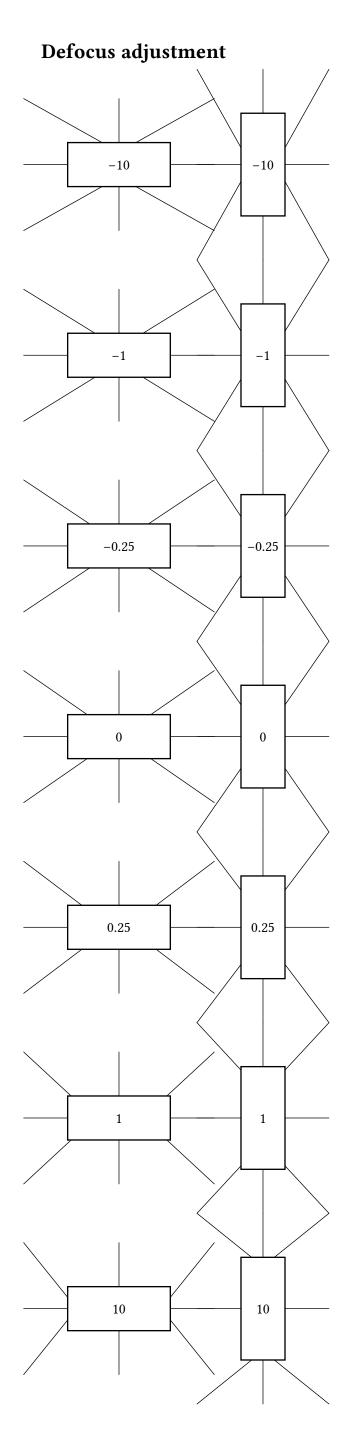
	İ	i	i
Math	Unicode	Mark	Diagram
$\rightarrow$	$\rightarrow$	->	$\longrightarrow$
$\longrightarrow$	?	->	$\longrightarrow$
$\leftarrow$	<b>←</b>	<-	<del></del>
$\leftrightarrow$	$\leftrightarrow$	<->	$\longleftrightarrow$
$\longleftrightarrow$	?	<->	$\longleftrightarrow$
<b>→</b>	?	->>	<del>*************************************</del>
<del>«</del>	?	<<-	*
$\rightarrow$	?	>->	$\longrightarrow$
$\leftarrow$	?	<-<	<del></del>
$\Rightarrow$	$\Rightarrow$	=>	$\Longrightarrow$
$\Rightarrow$	?	=>	$\Longrightarrow$
$\leftarrow$	?	<=	<del></del>
$\Leftrightarrow$	$\Leftrightarrow$	<=>	$\iff$
$\Leftrightarrow$	?	<=>	$\longleftrightarrow$
$\mapsto$	$\mapsto$	->	$\longmapsto$
$\Rightarrow$	?	=>	$\longmapsto$
^>	?	none!	none!
₩	?	none!	none!
$\hookrightarrow$		hook->	$\hookrightarrow$
$\leftarrow$		<-hook'	<del></del>

## Bending arrows

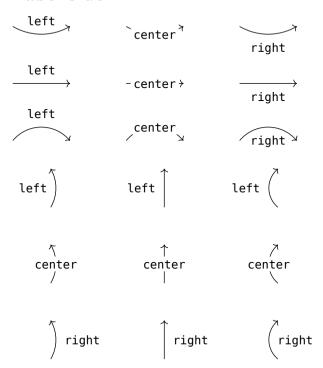


## Fine mark angle corrections



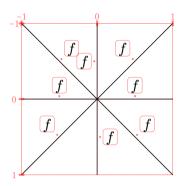


#### Label side

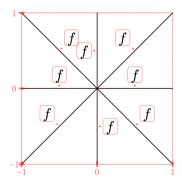


## Automatic label placement

Default placement above the line.



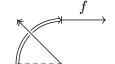
#### Reversed *y*-axis:



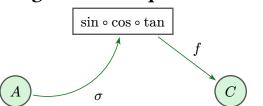
## **Crossing connectors**



## edge() argument shorthands



## **Diagram-level options**



D

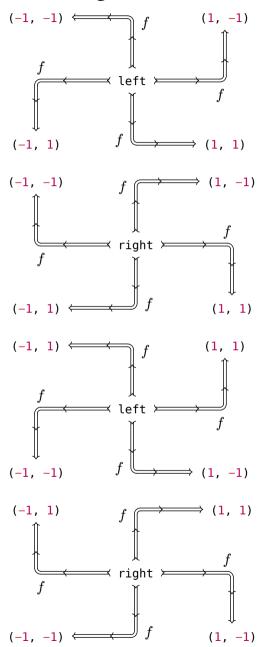
## **CeTZ** integration

TODO!

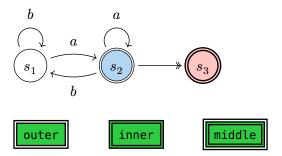
Bézier



## Corner edges



#### Double node strokes

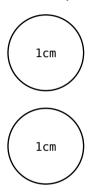


Relative and absolute extrusion lengths



#### Custom node sizes

Make sure provided dimensions are exact, not affected by node inset.



width

height

b<mark>ot</mark>h

#### Node inset and outset

What 5mm inset should look like:



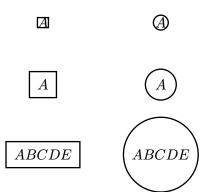
A diagram node with 5mm inset:



A diagram node with 5mm outset:

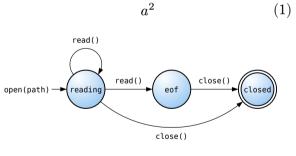


Circular insets:



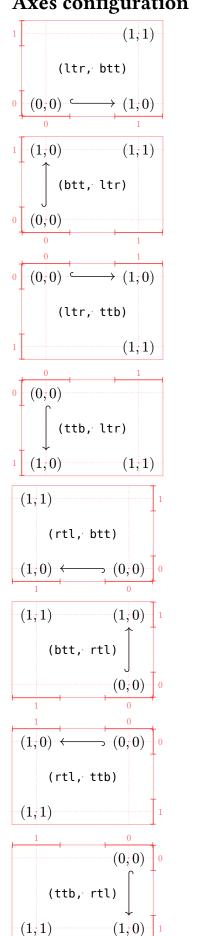
### Example

Make sure node or edge labels don't pick up equation numbers!

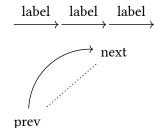


$$b^2 (2)$$

## Axes configuration



## Implicit from and to points



#### Edge positional arguments

Explicit named arguments versus implicit positional arguments.

Each row should be the same thing repeated.

$$A \longrightarrow B \quad A \longrightarrow B \quad A \longrightarrow B$$

$$A \stackrel{\pi}{\longrightarrow} B \quad A \stackrel{\pi}{\longrightarrow} B \quad A \stackrel{\pi}{\longrightarrow} B$$

$$A \stackrel{\tau}{\longmapsto} B \quad A \stackrel{\tau}{\longmapsto} B \quad A \stackrel{\tau}{\longmapsto} B$$

$$A \stackrel{+}{\longrightarrow} B \quad A \stackrel{+}{\longrightarrow} B \quad A \stackrel{+}{\longrightarrow} B$$

### Math-mode diagrams

The following diagrams should be identical:

$$G \xrightarrow{f} \operatorname{im}(f)$$

$$\pi \downarrow \qquad \tilde{f} \qquad \tilde{f} \qquad \tilde{f}$$

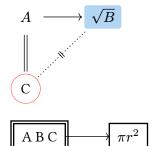
$$G/\ker(f)$$

$$G \xrightarrow{\tilde{f}} \operatorname{im}(f)$$

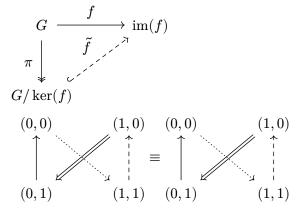
$$\pi \downarrow \qquad \tilde{f} \qquad \tilde{f} \qquad \tilde{f}$$

$$G/\ker(f)$$

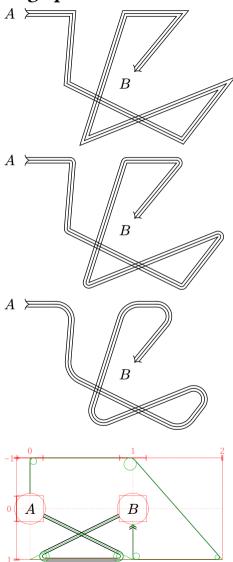
### Nodes in math-mode



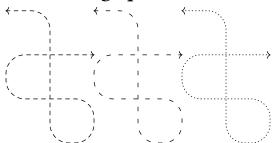
#### Relative node coordinates



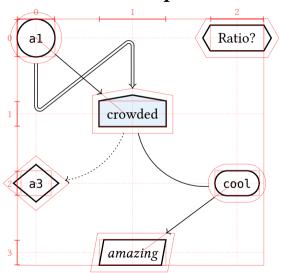
# Edge paths



## Dashed edge paths



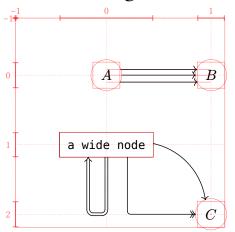
## Custom node shapes



## **Intersection finding**



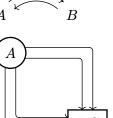
## Off-center edges



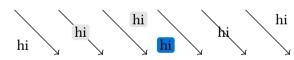
# Edge shift







### Label fill



#### Line decorations

 $A \longleftrightarrow B \longleftrightarrow C \longleftrightarrow C \longleftrightarrow$ 

