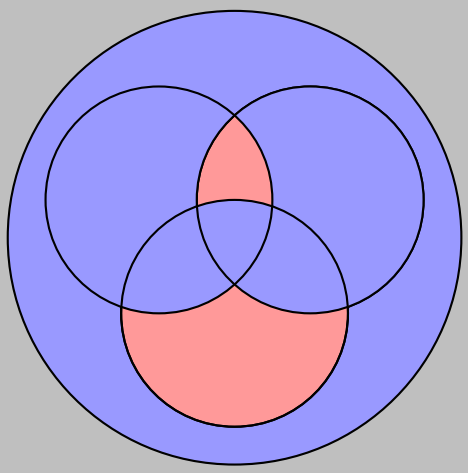
PSTricks

# pst-venn

A PSTricks package for drawing Venn sets; v 0.01

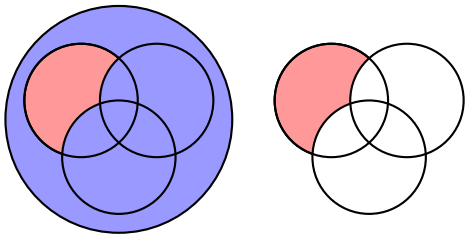
December 4, 2018



Package author(s):
**Herbert Voß**

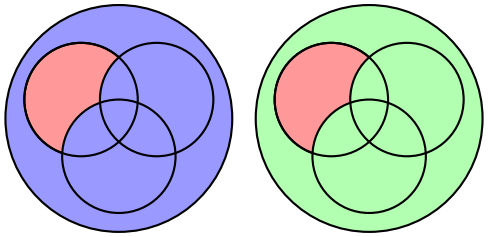
`\psVenn[options](O1)(O2)(O3){radius}{segments}`

There are the following optional arguments:
`bgcircle=<true/false>`:



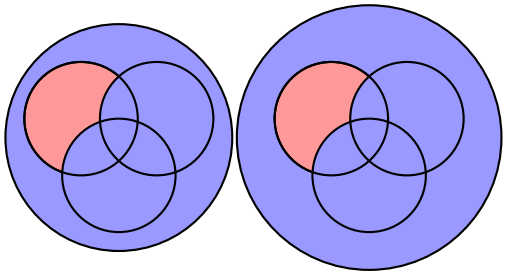
```
\begin{pspicture}(-3.2,-3.2)(3.2,3.2)
  \psVenn[bgcircle](-1,0.5)(0,-1)(1,0.5){1.5}{1}
\end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2)
  \psVenn[bgcircle=false](-1,0.5)(0,-1)(1,0.5){1.5}{1}
\end{pspicture}
```

`bgcolor=<color>`:



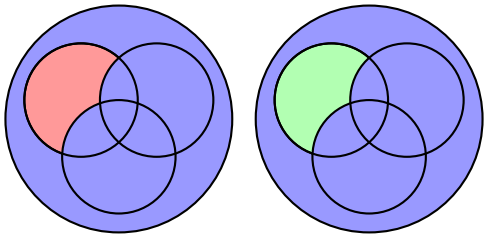
```
\begin{pspicture}(-3.2,-3.2)(3.2,3.2)
  \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{1}
\end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2)
  \psVenn[bgcolor=green!30](-1,0.5)(0,-1)(1,0.5){1.5}{1}
\end{pspicture}
```

`bgradius=<value[unit]>`:



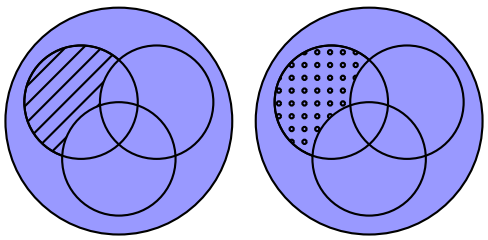
```
\begin{pspicture}(-3.2,-3.2)(3.2,3.2)
  \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{1}
\end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2)
  \psVenn[bgradius=3.5](-1,0.5)(0,-1)(1,0.5){1.5}{1}
\end{pspicture}
```

`fgcolor=<color>`:



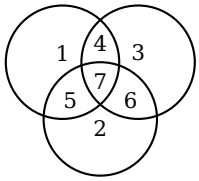
```
\begin{pspicture}(-3.2,-3.2)(3.2,3.2)
  \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{1}
\end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2)
  \psVenn[fgcolor=green!30](-1,0.5)(0,-1)(1,0.5){1.5}{1}
\end{pspicture}
```

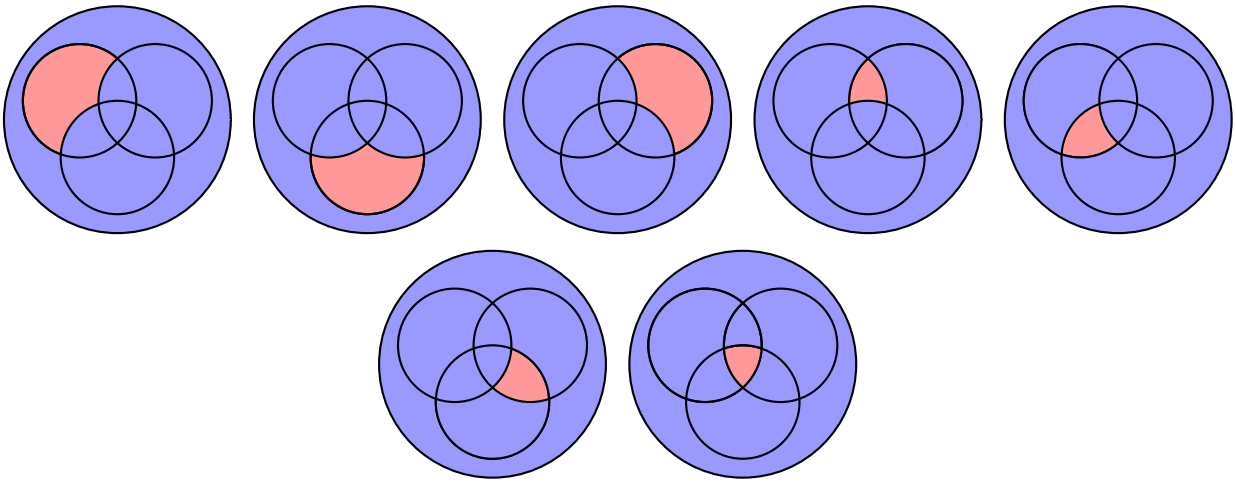
`vennfill=<style>`:



```
\begin{pspicture}(-3.2,-3.2)(3.2,3.2)
  \psVenn[vennfill=hlines](-1,0.5)(0,-1)(1,0.5){1.5}{1}
\end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2)
  \psVenn[vennfill=dots](-1,0.5)(0,-1)(1,0.5){1.5}{1}
\end{pspicture}
```

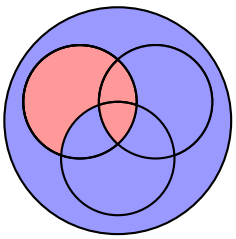
Every single area of the three circles has a number:



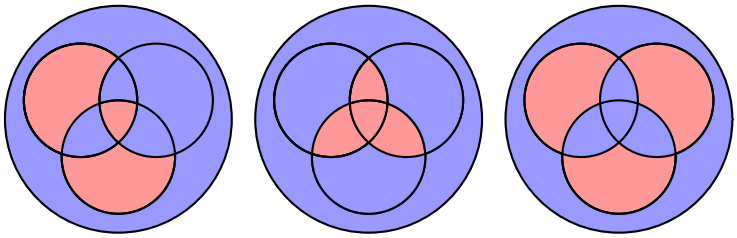



```
\begin{pspicture}(-3.2,-3.2)(3.2,3.2) \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{1} \end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2) \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{2} \end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2) \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{3} \end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2) \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{4} \end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2) \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{5} \end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2) \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{6} \end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2) \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{7} \end{pspicture}
```

The elements can be combined like 147:



```
\begin{pspicture}(-3.2,-3.2)(3.2,3.2)
  \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{147}
\end{pspicture}
```



```
\begin{pspicture}(-3.2,-3.2)(3.2,3.2) \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{127} \end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2) \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{4567}\end{pspicture}
\begin{pspicture}(-3.2,-3.2)(3.2,3.2) \psVenn(-1,0.5)(0,-1)(1,0.5){1.5}{123} \end{pspicture}
```

## References

[1] Denis Girou. “Présentation de PSTricks”. In: *Cahier GUTenberg* 16 (Apr. 1994), pp. 21–70.

[2] Michel Goosens et al. *The LaTeX Graphics Companion*. second. Boston, Mass.: Addison-Wesley Publishing Company, 2007.

[3] Herbert Voß. *PSTricks – Grafik für TeX und LaTeX*. 7th ed. Heidelberg and Hamburg: DANTE – lehmanns media, 2017.

[4] Herbert Voß. *PSTricks – Graphics for LaTeX*. 1st ed. Cambridge: UIT, 2011.

[5] Timothy Van Zandt and Denis Girou. “Inside PSTricks”. In: *TUGboat* 15 (Sept. 1994), pp. 239–246.