PSTricks

News - 2015
new macros and bugfixes for the basic package `pstricks`

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Part I.
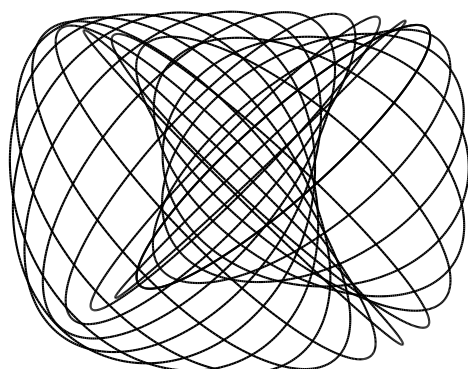# pstricks – package

1. pstricks.sty – pstricks-pdf.sty

The code for an automatic loading of package auto-pst-pdf is now moved into an own package pstricks-pdf. It allows to run PSTricks code with pdflatex --shell-escape <file>. The option pdf for pstricks itself is now obsolet.

2. pstricks.tex (2.64b– 2015/14/11)

PSTricks now takes the optional argument draft of the main document class into account. It shows only a frame, given by the coordinates of the pspicture environment.

2.1. PostScript code

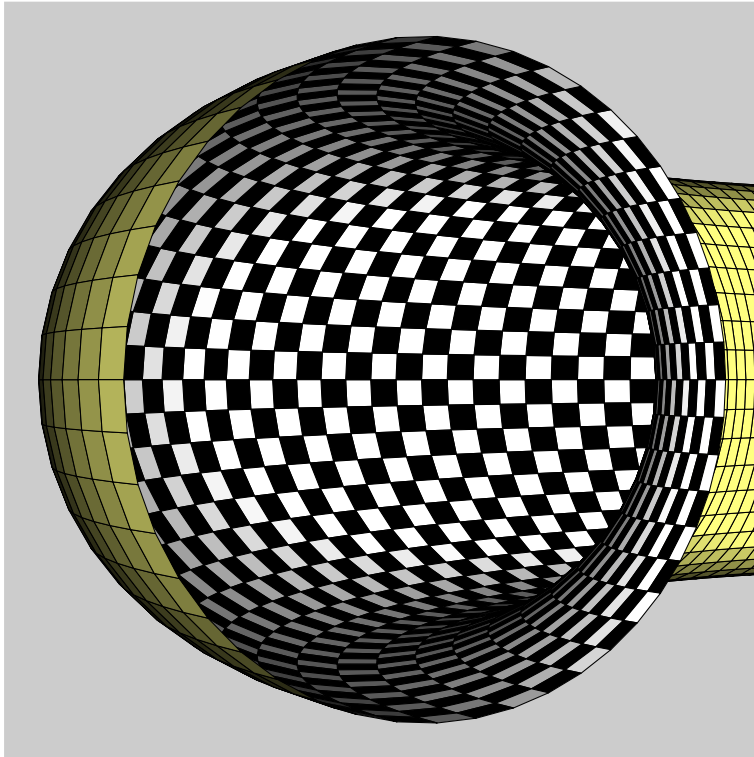Additionally to the macro \pstVerb there are now the keywords precode and postscode which can be used by other packages to paste PostScript code before and after the macros.


```
\psset{viewpoint=40 35 10 rtp2xyz,Decran=40,lightsrc=viewpoint,unit=0.5}
\begin{pspicture}(-6,-6)(6,6)
\defFunction{cercle1}(t)
  {4 t cos mul 2 sub rZ cos mul 4 t sin mul rZ sin mul add} %
  {4 t cos mul 2 sub rZ sin mul neg 4 t sin mul rZ cos mul add}%
  {4 t sin mul}%
\psforeach{\iA}{0,20,..,360}{%
  \psSolid[object=courbe,
    precode=/rZ \iA\space def,
    r=0,range=0 360,resolution=360,function=cercle1]}
\end{pspicture}
```

2.2. Background color

There is now the optional argument `bgcolor` (backgound color), which is only valid for
the background of the environment `pspicture` with its defined coordinates. Internally
it uses the macro `\psframe*`:


```
\begin{pspicture*}[bgcolor=black!20](-12,-5)(-2,5)
\psset{viewpoint=6 -50 0 rtp2xyz,Decran=4,lightsrc=viewpoint}
\defFunction[algebraic]{torus}(u,v)
    {2*(1+ 0.5*cos(u))*cos(v)}% x=f(u,v)
    {2*(1+ 0.5*cos(u))*sin(v)}% y=f(u,v)
    {2*0.5*sin(u)}%        z=f(u)
\psSolid[object=surfaceparametree,
 precode=/n1 48 def /n2 90 def /n1n2 n1 n2 mul 2 mul 1 sub def /iS 0 def,
 base=0 2 pi mul 0 pi 1.5 mul ,
 fcol=0 2 n1 2 sub {/i exch def
  i n2 mul 2 i n2 mul n2 add 1 sub {(Black)} for} for
  1 2 n1 1 sub {/i exch def i n2 mul 1 add 2 i n2 mul n2 add 1 sub {(Black)} for
      } for,
 fillcolor=white,incolor=yellow!50,
 function=torus,
 linewidth=0.5\pslinewidth,unit=5,ngrid=n1 n2]
\end{pspicture*}
```

References

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[3] Nikolai G. Kollock. *PostScript richtig eingesetzt: vom Konzept zum praktischen Einsatz*. IWT, Vaterstetten, 1989.

[4] Herbert Voß. Die mathematischen Funktionen von Postscript. *Die TeXnische Komödie*, 1/02:40–47, March 2002.

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[6] Herbert Voß. *LaTeX Referenz*. DANTE – lehmanns media, Heidelberg/Hamburg, 2. edition, 2010.

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