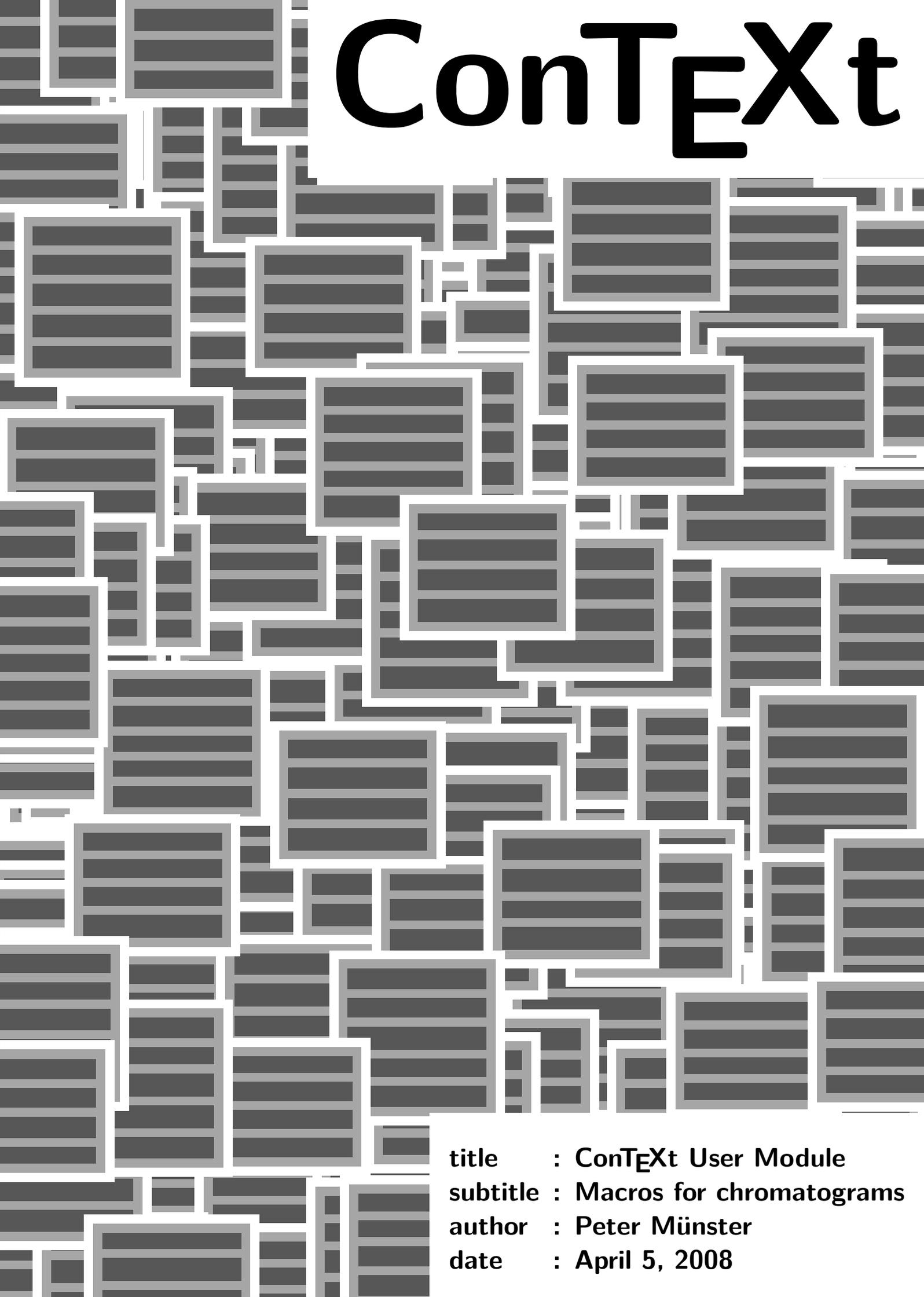


ConTEXTt

The background of the page is a dense, overlapping pattern of numerous small, stylized document icons. Each icon is a dark gray rectangle with a white border and contains several horizontal white lines, representing text. The icons are scattered across the entire page, creating a textured, collage-like effect.

title : ConTEXTt User Module
subtitle : Macros for chromatograms
author : Peter Münster
date : April 5, 2008


```

1 \startmodule[chromato]
2 \writestatus{loading}{Macros for chromatograms}
3 \unprotect
   Some internal dimensions:
4 \doifundefined{Width}{\newdimen\Width}
   \doifundefined{Height}{\newdimen\Height}
\startChro.. Starting a chromatogram.
5 \def\startChromato{\bgroup\dosingleempty\dostartChromato}
   \def\dostartChromato[#1]#2#3{\getparameters[CHROM][dim=0.6,#1]
     \def\myChromFig{\doifdefinedelse{CHROMSdim}{%
       \externalfigure[#2][height=\CHROMSdim\textheight]}{%
       \externalfigure[#2][width=\CHROMdim\makeupwidth]}}%
     \setbox\scratchbox\hbox{\myChromFig}%
     \Width=\wd\scratchbox \Height=\ht\scratchbox \setuppositioning[unit=pt]
     \gdef\SavedCaption[#3]\doifundefined{CHROMSdim}{\placefigure[] [fig:#2]{#3}}%
     \bgroup\startpositioning\position(0,0){\myChromFig}}
\stopChrom.. End of chromatogram.
6 \def\stopChromato{\stoppositioning\egroup\egroup{\doifdefined{CHROMSdim}{%
   \SavedCaption}}}}
\startChro.. Begin set of chromatograms.
7 \def\startChromatos{\dosingleempty\dostartChromatos}
   \def\dostartChromatos[#1]#2#3{\placefigure[] [fig:#2]{#3}\bgroup
     \getparameters[CHROMS][dim=0.3,#1]
     \doifdefined{CHROMSdist}{\setupcombinations[distance=\CHROMSdist em]}%
     \startcombination[2*1]}
\stopChrom.. End of chromatograms.
8 \def\stopChromatos{\stopcombination\egroup}
   Internal macro: position left or right:
9 \define[3]\LRposition{\edef\YPos{\withoutpt{\the\dimexpr(\withoutpt{%
   \the\dimexpr(#1pt/100)}\Height - 0.1\baselineskip)}}%
   \position(#2,\YPos){\vbox to 2pt{\vss{\hbox to 0pt{#3}\vss}}}}
\Lbrace Place a brace at the left.
10 \define[4]\Lbrace{\LRposition{#1}0{\hss\rotate[rotation=90]{%
   $\overbrace{\hskip#2\Height}^{\hskip#3em}$
   \displaystyle\text{\rotate[rotation=270]{#4}}}$\hskip#3em}}
\Rbrace Place a brace at the right.
11 \define[4]\Rbrace{\LRposition{#1}{\withoutpt{\the\Width}}{\hskip#3em
   \rotate[rotation=270]{$\overbrace{\hskip#2\Height}^{\hskip#3em}$
   \displaystyle\text{\rotate[rotation=90]{#4}}}$\hss}}

```

Macros for chromatograms

```

\Larrow Place a flesh at the left.
12 \define[2]\Larrow{\LRposition{#1}0{\hss{\tx#2} $\rightarrow$}}

\Rarrow Place a flesh at the right.
13 \define[2]\Rarrow{\LRposition{#1}{\withoutpt{\the\Width}}{\$leftarrow$ \tx#2}}

\Above Place something above the chromatogram.
\Abrace
14 \define[3]\Oposition{\edef\XPos{\withoutpt{\the\dimexpr(\withoutpt{\the\dimexpr(#1pt/100)}\Width)}}%
\position(\XPos,-\withoutpt{\the\dimexpr(#2\baselineskip)}}){%
\hbox to \Opt{\hss#3\hss}}
\define[2]\Above{\Oposition{#1}{0.8}{\tx#2}}
\define[3]\Abrace{\Oposition{#1}{2.5}{%
\overbrace{\hskip#2\Width}^{\displaystyle\text{#3}}}}

15 \protect
16 \stopmodule
17 \doifnotmode{demo}{\endinput}

Usage example:
18 \usemodule[chromato]
\setupexternalfigures[directory=samples]
\mainlanguage[de]
\starttext
\startChromato{ecolizeit}{Expression der rekombinanten Fucosyltransferase V in
{em E. coli}.}
\Above{5}{BRS}\Above{15}{1h}\Above{26}{2h}\Above{38}{3h}\Above{50}{4h}
\Above{61}{1h}\Above{72}{2h}\Above{83}{3h}\Above{94}{4h}
\Larrow{12}{97\,kDa}\Larrow{20}{66\,kDa}
\Larrow{32}{45\,kDa}\Larrow{52}{31\,kDa}
\Lbrace{39}{0.75}{4}{A}
\Lbrace{90}{0.16}{4}{B}
\Abrace{32}{0.42}{löslich}
\Abrace{77}{0.42}{unlöslich}
\Rarrow{29}{FucT V}\Rarrow{87}{FucT V}
\stopChromato
\startChromatos[dim=0.17,dist=2]{saeuger}{Expression von rekombinanter
Fucosyltransferase V in unterschiedlichen Säugerzelllinien.}
\startChromato{saeuger}{A}
\Above{26}{CHO}\Above{74}{HEK}
\Larrow{4}{96\,kDa}\Larrow{37}{66\,kDa}\Larrow{81}{45\,kDa}
\stopChromato
\startChromato{saeugerred}{B}
\Above{26}{CHO}\Above{74}{HEK}
\Rarrow{81}{FucT V}
\stopChromato
\stopChromatos
\stoptext

```

```
\Above 2  
\Abrace 2  
  
\Larrow 2  
\Lbrace 1  
  
\Rarrow 2
```

```
\Rbrace 1  
  
\startChromato 1  
\startChromatos 1  
\stopChromato 1  
\stopChromatos 1
```

