

MyPack Template Vignette

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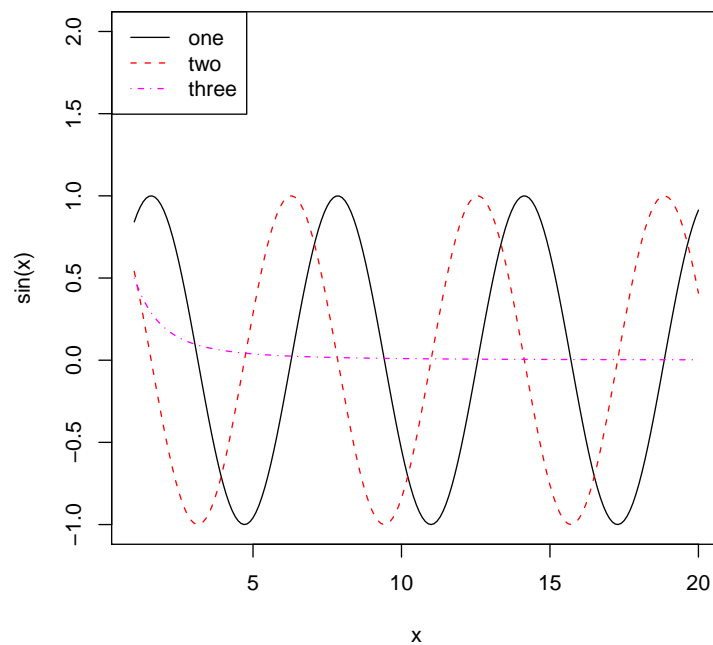
1 Introduction

Introduction with citation: [IG96].

Another citation: [Lei02].

2 An R code chunk

```
> x <- seq(1,20,.1)
> plot(x,sin(x),type='l',lty=1,col=1, ylim=c(-1,2))
> lines(x,cos(x),type='l',lty=2,col=2)
> lines(x,1/(1+x^2),type='l',lty=4,col=6)
> legend("topleft",c('one','two','three'), lty=c(1,2,4), col=c(1,2,6))
```



3 Using srcinclude

An R code chunk that uses a package C++ function:

Source not shown: `\srcinclude` for development only.

```
> library(MyPack)
> compile=TRUE
> x <- 2.0
> df <- data.frame(a=c(1,2,3,4), b=as.Date('2010-04-15') + 1:4)
> MyTest(x, df)
```

```
x = 2
sqrtx = 1.414214
```

```
df1:
  a      b
1 1 2010-04-16
2 2 2010-04-17
3 3 2010-04-18
4 4 2010-04-19
```

```
df2:
  a      b
1 1 2010-04-16
2 2 2010-04-17
3 3 2010-04-18
4 4 2010-04-19
```

4 Using cppinclude

```
1 #include <cxxPack.hpp>
2 RcppExport SEXP testDotproduct(SEXP x, SEXP y) {
3     BEGIN_RCPP
4     Rcpp::NumericVector nv1(x), nv2(y);
5     double sum=0;
6     for(int i=0; i < nv1.size(); ++i)
7         sum += nv1(i)*nv2(i);
8     return Rcpp::wrap(sum);
9     END_RCPP
10 }
```

```
> library(MyPack)
> compile=TRUE
> loadcppchunk('testDotproduct', compile=compile)
> x <- 1:5
> y <- 1:5
> sum(x*y)
```

```
[1] 55
```

```
> .Call('testDotproduct',x,y)
```

```
[1] 55
```

5 Conclusion

Concluding remarks.

References

- [IG96] Ross Ihaka and Robert Gentleman. R: A language for data analysis and graphics. *Journal of Computational and Graphical Statistics*, 5(3):299–314, 1996.

- [Lei02] Friedrich Leisch. Sweave: Dynamic generation of statistical reports using literate data analysis. In Wolfgang Härdle and Bernd Rönz, editors, *Compstat 2002 — Proceedings in Computational Statistics*, pages 575–580. Physica Verlag, Heidelberg, 2002. ISBN 3-7908-1517-9.