

# A first glimpse into 'R.ff', a package that virtually removes R's memory limit

Jens Oehlschlägel      Daniel Adler      Oleg Nenadic      Walter Zucchini

The availability of large atomic objects through package 'ff' can be used to create packages implementing statistical methods specifically addressing large data sets (like sub-bagging or package biglm). However, wouldn't it be great if we could apply all of R's functionality to large atomic data? Package 'R.ff' is an experiment to provide as much as possible of R's basic functionality as 'ff-methods'. We report first experiences with porting standard R functions to versions operating on ff objects and we discuss implications for package authors (and maybe also R core). Instead of a summary, here we just quicken your appetite through the list of functions and operators where we have first experimental ports:

```
! != \% \% \%* \% \% / \% \%& | * + - / < <= == > >= ^ abs acos acosh asin asinh atan
atanh bessell besselj bessellk bessely beta ceiling choose colMeans colSums cos
cosh crossprod cummax cummin cumprod cumsum dbeta dbinom dcauchy dchisq dexp df
dgamma dgeom dhyper digamma dlnorm dlogis dnbinom dnorm dpois dsignrank dt dunif
dweibull dwilcox exp expm1 factorial fivenum floor gamma gammaCody IQR is.na
is.nan jitter lbeta lchoose lfactorial lgamma log log10 log1p log2 logb mad order
pbeta pbinom pcauchy pchisq pexp pf pgamma pgeom phyper plnorm plogis pnbinom
pnorm ppois psigamma psignrank pt punif pweibull pwilcox qbeta qbinom qcauchy
qchisq qexp qf qgamma qgeom qhyper qlnorm qllogis qnbinom qnorm qpois qsignrank
qt quantile qunif qweibull qwilcox range range rbeta rbinom rcauchy rchisq rexp
rf rgamma rgeom rhyper rlnorm rlogis rnbinom rn timer round rowMeans rowSums rpois
rsignrank rt runif rweibull rwilcox sample sd sign signif sin sinh sort sqrt
summary t tabulate tan tanh trigamma trunc var.
```