

Paper of the Month, December 2020: [Dirk Eddelbuettel and Conrad Sanderson\(2014\)](#)
[RcppArmadillo: Accelerating R with high-performance C++ linear algebra.](#) *Computational Statistics and Data Analysis*, 2014, 71, March, pages 1054- 1063

In statistical computing with R, the Rcpp package is a breakthrough in that it greatly simplified interfacing R with C++ (Eddelbuettel and Francois, 2011). Thousands of R packages depend on, import from, or link to the Rcpp package. Such an interface often leads to drastic improvements in efficiency by writing key R functions in C++, bringing the speed of compiled languages like C++ to the interpreted language R. Package RcppArmadillo further extends the Rcpp package to easily access the C++ matrix library armadillo. This is important for many statistical applications such as Markov chain Monte Carlo, vector autoregressive models, and so on. It is an important tool for students in statistics today, especially for those who need to deal with computing-intensive tasks or who want to make their methods available for others to use through R packages. An example is the splines2 package developed by my former Ph.D. student Wenjie Wang, which offers API for C++ implementations of shape restricted splines bases.