

Practical 4: Introduction to Rcpp

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Introduction

In this practical you will learn:

- How to use Rcpp to include functions in R.

C implementation of the function

1. Use Rcpp to write another function for the inner product.
2. Check the package again to fix errors and missing stuff.
3. Install the package and check the function.
4. Compare the R, C and Rcpp implementations using vectors of different sizes (e.g., 100000).

C++ code for inner product

```
double innerprod (NumericVector x, NumericVector y) {
    int n = x.size(); //Perhaps check that x.size() == y.size()...
    double iprod = 0;

    for(int i = 0; i++ ; i < n) {
        iprod += x[i] * y[i];
    }

    return iprod;
}
```