

## 4th Exercise in HPC

### Exercise 1

Use the following program to make yourself familiar with the *C++* - Multithreading.

```
#include <iostream>
#include <vector>
#include <thread>
// needs: g++ -std=c++11 -pthread
using namespace std;
void testme(int N)
{
    cout<<"Thread: "<<this_thread::get_id()<<" N ist "<<N<<endl;
}
int main()
{
    thread t1(testme,2);
    thread t2(testme,3);
    thread t3(testme,4);
    testme(1)
    t1.join(); t2.join(); t3.join();
}
```

### Exercise 2

Write a programm to calculate the scalar-product of 2 vectors using the *C++*- Multithreading support. You can make use of the *std::vector<type>* class provided by *C++*.