



Institut of Numerical Mathematics

Dr. Andreas F. Borchert and Dr. Michael C. Lehn  
Mladjan Radic

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Quiz 1

## High Performance Computing I (WS 2016/2017)

Deadline: 24 October 2016, 2pm

### Notice:

Please register yourself in SLC for HPC I. The registration will allow you to submit your answers to the following questions. Please type your responses in a simple text file named "quiz01.txt" and submit it on our server *thales* using the following command:

```
thales$ submit hpc quiz01 quiz01.txt
```

### Question 1

Following program works with arrays named or accessed through  $a$ ,  $b$ ,  $c$ , and  $d$ . In which storage area (global, stack, or heap) is each of the arrays allocated?

```
#include <stdlib.h>
double a[32];
double* b;
int main() {
    double c[32];
    b = malloc(sizeof(double)*32);
    double* d = malloc(sizeof(double)*32);
}
```

### Question 2

When are local variables deallocated?

### Question 3

How are storage areas on the heap deallocated?