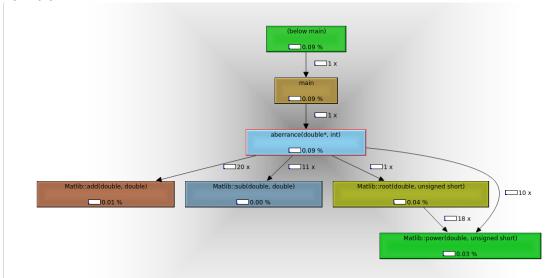
Výstup pro 10 čísel:

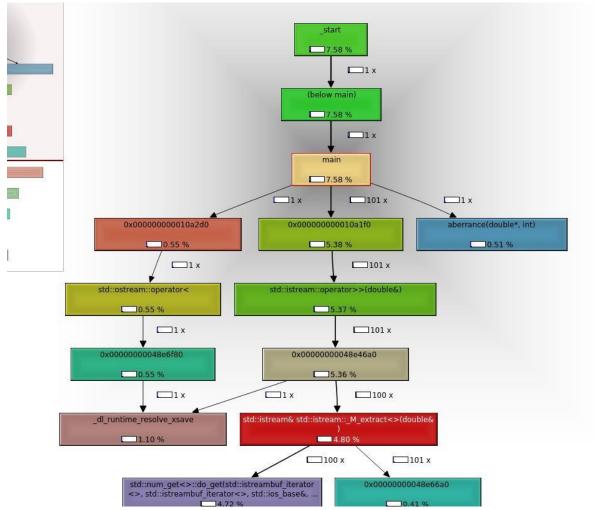


1 - graf volání funkcí z matlib.h

```
aberrance(double*, int)
            Callers
                       All Callers
                                      Callee Map
                                                      Source Code
 Types
            Source
  26
  27
  28
            double aberrance( double numbers[], int numSize )
      0.00 {
  29
  30
               Matlib math; //creating a instation of class
  31
      0.00
               long double sum = 0;
  32
              double tmp = 0;
      0.00
  33
  34
      0.00
               for ( int i = 0; i < numSize; i++)
  35
  36
                  //count average
  37
      0.00
                  tmp = numbers[i];
  38
      0.00
                  sum = math.add(sum, tmp);
       0.00
               10 call(s) to 'Matlib::add(double, double)' (stddeviation: matlib.cpp)
  39
  40
      0.00
               double average = math.div(sum,numSize);
       0.00 1 call(s) to 'Matlib::div(double, double)' (stddeviation: matlib.cpp)
  41
  42
      0.00
               long double sumOfNumbers = 0;
  43
  44
      0.00
               for ( int j = 0; j < numSize; j++)
  45
  46
                 // sumOfNumbers = sumOfNumbers + (( x - average)^2)
  47
      0.01
                  sumOfNumbers = math.add( ( math.power( math.sub( numbers[j], average ), 2) ), sumOfNumbers);
       0.00
                10 call(s) to 'Matlib::add(double, double)' (stddeviation: matlib.cpp)
       0.00
                10 call(s) to 'Matlib::sub(double, double)' (stddeviation: matlib.cpp)
       0.01
               10 call(s) to 'Matlib::power(double, unsigned short)' (stddeviation: matlib.cpp)
  48
  49
               // total = 1 / (N-1) * sumOfNumbers
  50
      0.00
               double total = 0;
               total = math.mul( sumOfNumbers, math.div( 1, math.sub( numSize, 1 ) ));
  51
      0.00
               1 call(s) to 'Matlib::mul(double, double)' (stddeviation: matlib.cpp)
1 call(s) to 'Matlib::sub(double, double)' (stddeviation: matlib.cpp)
      0.00
       0.00
               1 call(s) to 'Matlib::div(double, double)' (stddeviation: matlib.cpp)
       0.00
      0.00 double result = math.root(total, 2);
0.04 1 call(s) to 'Matlib::root(double, unsigned short)' (stddeviation: matlib.cpp)
  52
      0.00
  53
      0.00
              return result;
  54
      0.00 }
  55
 56
57
            //main function - to read numbers from file
```

```
Location

16.2.31.so
16.2.31.so ridac, di-machine.h, get-dynamic-info.h, do-rel.h
16.2.31.so ridac, di-machine.h, get-dynamic-info.h, do-rel.h
16.2.31.so ridac, di-prop.h, get-dynamic-info.h, setup-vdso.h, di-vdso.h, di-vdso-setup.h, di-osinfo.h
16.2.31.so di-lockup.c, di-machine.h, do-rel.h, ldsodefs.h
16.2.31.so di-lockup.c, disodefs.h
16.2.31.so di-tokup.c, disodefs.h
16.2.31.so di-tokup.c, disodefs.h
16.2.31.so di-lockup.c, disodefs.h
16.2.31.so di-lockup.c
16.2.31.so di-lockup.c
18.so di-
                                                                                                                                                                                ilbstdc++, so.6, 0.28 (d-2.31, soc d-runtime.c, dl-machine.h, dl-irel.h (d-2.31, soc d-runtime.c, dl-machine.h, dl-irel.h (d-2.31, soc dl-init.c (d-2.31, soc dl-init.c (d-2.31, soc dl-init.c (unknown) (bibstdc++, so.6, 0.28 (unknown) (bibc-2.31, soc in-malloc.c (bibc-2.31, soc in-m
                                                                                                                                                                                  stddeviation: stddeviation.cpp
ld-2.31.so: dl-deps.c, scratch_buffer.h
                                                                                                                                                                                  (unknown)
Id-2.31.so: dl-error-skeleton.c
(unknown)
                                                                                                                                                                                (unknown)
Id-2.31.so: dl-load.c
Iibstdc++.so.6.0.28
(unknown)
Iibstdc++.so.6.0.28
                                                                                                                                                                                (unknown)
Id-2.31.so: dl-deps.c
libstdc++.so.6.0.28
                                                                                                                                                                                ld-2.31.so: dl-version.c
ld-2.31.so: dl-version.c
ld-2.31.so: dl-version.c
ld-2.31.so: dl-version.c
     main
                                                          Callers All Callers Callee Map Source Code
             Types
                           Ir
                                                           Source
              56
                                                           //main function - to read numbers from file
                57
                58
                                                           int main( int argc, char *argv[])
                                0.00 {
              59
              60
                                   0.00
                                                                       ifstream file;
                                   0.25 1 call(s) to '0x00000000010a260'
                                   0.35 1 call(s) to '0x000000000010a1a0'
              61
                62
                63
                                   0.00
                                                                       if ( argc != 2 )
              64
                65
                                                                                  cerr << "there must be 1 argument - file with array of numbers" << endl;
              66
67
68
                                                                                 return 0;
                                                                       else
              69
70
                                                                       {
                                  0.00
                                                                                  char *fileNum = argv[1];
                                  0.00 file.open( fileNum, ifstream::in );
0.29 1 call(s) to '0x000000000010a1d0'
              71
                                  0.00 if (!file.is_open() ) //for case program can not open a file
0.00 1 call(s) to '0x00000000010a290'
                72
                73
                                                                                  {
              74
75
                                                                                             throw new std::runtime_error("Failed to open file");
                                                                                             return 0;
                77
                78
                                                                       double num;
                                                                       double array[10000]; // load numbers to this array double numSize = 0;
                79
                                 0.00
                80
                                  0.06 for (int i = 0; file >> num; i++)
0.02 101 call(s) to '0x000000000010a270'
              81
                                   5.38 101 call(s) to '0x000000000010a1f0'
                82
                                  0.02
                                                                                  array[i] = num;
              83
                84
                                   0.02
                                                                                 numSize++;
              85
                86
                                   0.00 double deviation = aberrance( array, numSize);
0.51  1 call(s) to 'aberrance(double*, int)' (stddeviation: stddeviation.cpp)
              87
                                  0.00
                                  0.00 cout << deviation << endl;
0.13 1 call(s) to '0x00000000010a240'
0.55 1 call(s) to '0x000000000010a2d0'
                88
                89
                                  0.00
                                                                    return 0;
                                  0.00 }
                90
                91
              92
```



4 - přehled všech běžících procesů znázorněný v grafu