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Subject: about some class equivalent to BOOST  
Posted by [forlano](#) on Tue, 10 Oct 2017 17:24:37 GMT  
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Hello,

I am trying to use the Gnu Scientific Library. I have found an example to apply what I need but they use even use the BOOST library.

I wonder if we U++ lovers have something equivalent to perform the same job.  
The code that I want to replace is this

```
f_params &params= *reinterpret_cast<f_params *>(p);
```

inside the function f.

Many thanks,  
Luigi

PS: Here is the full code

```
#include <cmath>
#include <iostream>
#include <boost/shared_ptr.hpp>

#include <gsl/gsl_integration.h>

struct f_params {
    double a;
    double phi;
};

double f(double x, void *p)
{
    f_params &params= *reinterpret_cast<f_params *>(p);
    return sin(params.a*x+params.phi);
}

void dointeg(void)
{
    f_params params;
    params.a=1.0;
    params.phi=0.0;

    gsl_function F;
    F.function = &f;
    F.params = reinterpret_cast<void *>(&params);
```

```
double result, error;
size_t neval;

const double xlow=0;
const double xhigh=10;
const double epsabs=1e-4;
const double epsrel=1e-4;

int code=gsl_integration_qng (&F, xlow, xhigh, epsabs, epsrel, &result, &error, &neval);
}

int main(void)
{
    dointeg();
}
```

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