

[Help](#)

```
#pragma once

#include "
href../../../../common/math/mcam/src/Option_h_src.pdfOption.hpp"
#include "
href../../../../common/math/mcam/src/DupireModel_h_src.pdfModel.hpp"
#include "
href../../../../common/math/mcam/src/Martingale_h_src.pdfMartingale.hpp"
#include "
href../../../../common/math/mcam/src/regression_h_src.pdfregression.hpp"

namespace mcam {
typedef enum
{
    REG_POL = 1,
    REG_CHAOS = 2,
    REG_REDUCED_CHAOS = 3
} RegressorType;

class MonteCarlo
{
public:
    Model *mod;
    Option *opt;
    Martingale *mart;
    int iterationsMC;

    MonteCarlo(Model *p_mod, Option *p_opt, Martingale *p_mart, const Param &p_m
    void print() const;
    void solve_backward_induction(Regression *p_reg, PnlVect **p_Z, PnlVect *p_Z
    void backward_price_dpp(double &p_prix, double &p_var, const PnlVect *p_alph

private:
    RegressorType regType;
    int regressionDegree;
    std::string regressionTypeString;
};
```

}