FunctionRn

- vector<Monomial> monoms;

+ double eval (const Point & P) const;

+ addMonomial (const Monomial & m)
+ double eval_deriv (size_t j, const Point & P)

$f(x_1 .. x_n) = a_1 x_1 + a_2 x_2 + a_3 x_1 x_2 + \ldots$

Monomial

- double coeff
- vector<double> powers 1,0

+ Monomial (double c, vector<double> const & pows)
+ double eval (Point const & P)

Point

coords_type x;

+ explicit Point (coords_type const & coords)
+ double distance (const Point & p)

+ size_t get_n_dimensions ()
+ double get_coord (size_t i)
+ set_coord (size_t i, double val)
+ coords_type get_coords ()

+ double euclidean_norm ()
+ double infinity_norm ()

FunctionMinRn

FunctionRn f;

- double tolerance
- double step
- unsigned int max_iterations
- vector<double> inf_limits;
- vector<double> sup_limits;

- Point compute_gradient (const Point & P0)

- Point solve (const Point & P)

- next_inf_limit (vector<double> & cur_inf_limit,
const vector<double> & internal_steps)

+ FunctionMinRn (FunctionRn func, double tol, double s,
unsigned int max_it, const std::vector<double> & inff_limits,
const std::vector<double> & supp_limits)

+ Point solve (void) const;

+ Point solve_multistart (unsigned int n_trials) const;
+ Point solve_domain_decomposition (unsigned int n_intervals,
unsigned int n_trials)