FunctionRn

- vector<Monomial> monoms;
- + double eval (const Point & P) const;
- + addMonomial (const Monomial & m)
- + double eval_deriv (size_t j, const Point & P)

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

Monomial

- double coeff
- vector<double> powers

1,0

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

Point

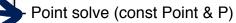
coords_type x;

- + 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 infinity_norm ()
- + double euclidean_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)



- 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)