Contents

1 Classes **2**

1.1 poly.multivar – multivariate polynomial 2

1.1.1 PolynomialInterface – base class for all multivariate polynomials 3

1.1.2 BasicPolynomial – basic implementation of polynomial . . 3

1.1.3 TermIndeces – Indeces of terms of multivariate polynomials 3

1.1.3.1 pop 4

1.1.3.2 gcd 4

1.1.3.3 lcm 4

Chapter 1

Classes

1.1 poly.multivar – multivariate polynomial

- **Classes**
  - †**PolynomialInterface**
  - †**BasicPolynomial**
  - **TermIndeces**

1.1.1 PolynomialInterface – base class for all multivariate polynomials

Since the interface is an abstract class, do not instantiate.

1.1.2 BasicPolynomial – basic implementation of polynomial

Basic polynomial data type.

1.1.3 TermIndeces – Indeces of terms of multivariate polynomials

It is a tuple-like object.

Initialize (Constructor)

TermIndeces(`indeces`: ***tuple***) → ***TermIndeces***

The constructor does not check the validity of indeces, such as integerness, nonnegativity, etc.

Operations

operator	explanation
`t == u`	equality
`t != u`	inequality
`t + u`	(componentwise) addition
`t - u`	(componentwise) subtraction
`t * a`	(componentwise) multiplication by scalar `a`
`t <= u, t < u, t >= u, t > u`	ordering
`t[k]`	`k`-th index
`len(t)`	length
`iter(t)`	iterator
`hash(t)`	hash

Methods

1.1.3.1 pop

pop(`self`, `pos`: *integer*) → (*integer*, *TermIndeces*)

Return the index at pos and a new TermIndeces object as the omitting-the-pos indeces.

1.1.3.2 gcd

gcd(`self`, `other`: *TermIndeces*) → *TermIndeces*

Return the "gcd" of two indeces.

1.1.3.3 lcm

lcm(`self`, `other`: *TermIndeces*) → *TermIndeces*

Return the "lcm" of two indeces.

Bibliography