# **CddInterface**

# Gap interface to Cdd package

0.1

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### **Chapter 1**

### **Functions and Methods**

### 1.1 Creating a polyhedra

#### 1.1.1 Cdd\_PolyhedraByInequalities

```
▷ Cdd_PolyhedraByInequalities(arg)
    Returns: a CddPolyhedra Object
```

The function takes a list in which every entry represents an inequality( or equality). In case we want some entries to represent equalities we should refer to their indices in a second list.

(function)

```
_ Example
gap> A:= Cdd_PolyhedraByInequalities([[ 0, 1, 3 ], [ 0, 4, 8 ] ] );
< Polyhedra given by its H-representation >
gap> Display( A ) ;
H-representation
Begin
  2 X 3 rational
  0 1 3
  0 4 8
gap> B:= Cdd_PolyhedraByInequalities( [ [ 0, 1, 3 ], [ 0, 4, 8 ] ], [2] );
< Polyhedra given by its H-representation >
gap> Display( B ) ;
H-representation
Linearity 1, [2]
Begin
  2 X 3 rational
  0 1 3
  0 4 8
End
```

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