NumPy Arithmetic Operations

May 18, 2022

**Scalar means constant numeric value

a = np.array([10,20,30])

a = a+2

a = a-2

a = a*2

a = a/2 3 #result always float

a = a//2 #floor division(if both arguments are int type then returns int only otherwise float)

a = a%2

a = a**2

**For every arithmetic opeartor numpy libary defines equevelnt functions

np.add(a,b)

np.subtract(a,b)

np.multiply(a,b)

np.divide(a,b)

np.floor_divide(a,b)

np.mod(a,b)

np.power(a,b)

**to use this functions both array should be of same dimention, same size and same shape

```
[2]: # In numpy we are not getting any zero devision error

     import numpy as np

     a = np.array([0,10,20,30])
     a = a/0   # if 0/0 then nan, if other number/0 then infinity
     a
```

```
<ipython-input-2-8dc947763a81>:6: RuntimeWarning: divide by zero encountered in
true_divide
  a = a/0
```

```
<ipython-input-2-8dc947763a81>:6: RuntimeWarning: invalid value encountered in
true_divide
  a = a/0
```

[2]: array([nan, inf, inf, inf])

[ ]: