

# Activation Functions

CHEN Si

## 1 Motivation

- Add non-linearity to avoid the degradation to linear regression

## 2 Characteristics

- Typically element-wise
- Typically non-parameterized

## 3 Examples

1. **ReLU** (Rectified Linear Unit)

$$\text{ReLU}(x) = \max\{0, x\}$$

