

## tf.keras.optimizers.RMSprop

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Class RMSprop

## Methods

`__init__``from_config`Class **RMSprop**Inherits From: [Optimizer](#)Defined in [tensorflow/python/keras/\\_impl/keras/optimizers.py](#).

RMSProp optimizer.

It is recommended to leave the parameters of this optimizer at their default values (except the learning rate, which can be freely tuned).

This optimizer is usually a good choice for recurrent neural networks.

## Arguments:

- `lr`: float >= 0. Learning rate.
- `rho`: float >= 0.
- `epsilon`: float >= 0. Fuzz factor.
- `decay`: float >= 0. Learning rate decay over each update.

## Methods

**`__init__`**

```
__init__(  
    lr=0.001,  
    rho=0.9,  
    epsilon=1e-08,  
    decay=0.0,  
    **kwargs  
)
```

**`from_config`**

```
from_config(  
    cls,  
    config  
)
```

## get\_config

```
get_config()
```

## get\_gradients

```
get_gradients(  
    loss,  
    params  
)
```

## get\_updates

```
get_updates(  
    loss,  
    params  
)
```

## get\_weights

```
get_weights()
```

Returns the current value of the weights of the optimizer.

Returns:

A list of numpy arrays.

## set\_weights

```
set_weights(weights)
```

Sets the weights of the optimizer, from Numpy arrays.

Should only be called after computing the gradients (otherwise the optimizer has no weights).

Arguments:

- **weights**: a list of Numpy arrays. The number of arrays and their shape must match number of the dimensions of the weights of the optimizer (i.e. it should match the output of **get\_weights**).

Raises:

- **ValueError**: in case of incompatible weight shapes.

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