

## Examples

Stereo Matching is done using two methods. Namely, Region based, and feature based. The matching scores available are SSD, SAD and NCC. Either can be selected in the terminal.

In both the files, Images can be changed at:

```
# Change the images here to test
left = cv2.imread('left2.png')
right = cv2.imread('right2.png')
```

Number of levels of the pyramid can be set at: (level 1 is the original image)

```
# Set the desired number of levels for multi-resolution here (level = 1 is the original image)
levels = 3
```

Template size and window can be set at:

```
# Set the template size here
templateSize = 7

# Set the matching window here
window = 100
```

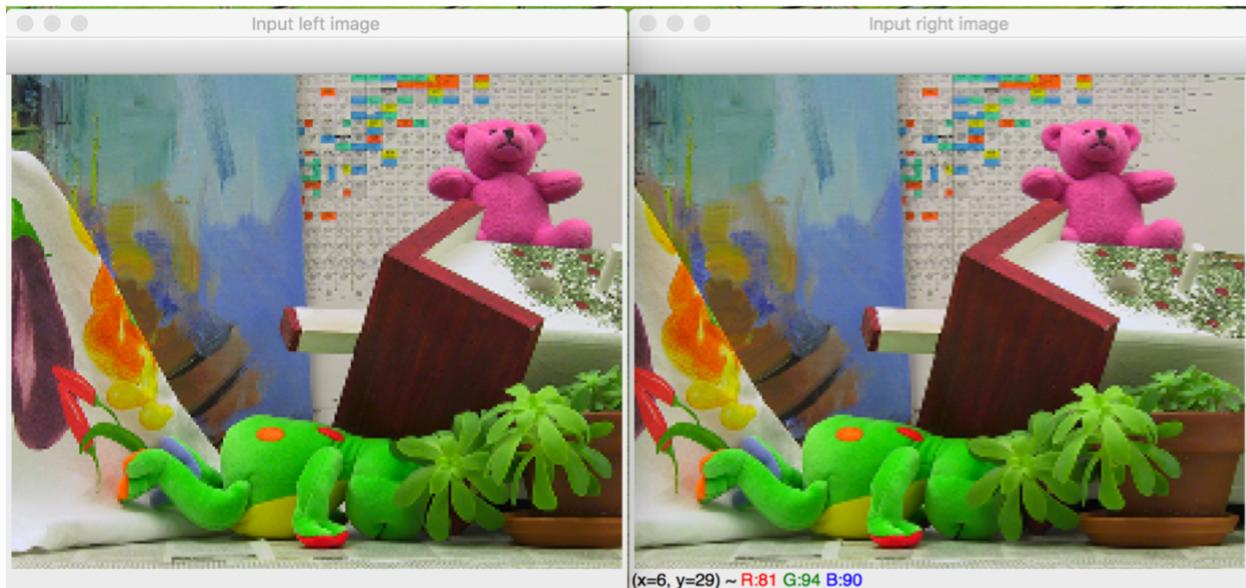
Matching score can be selected in the terminal:

```
Select a matching score: 1.SSD    2.SAD    3.NCC
```

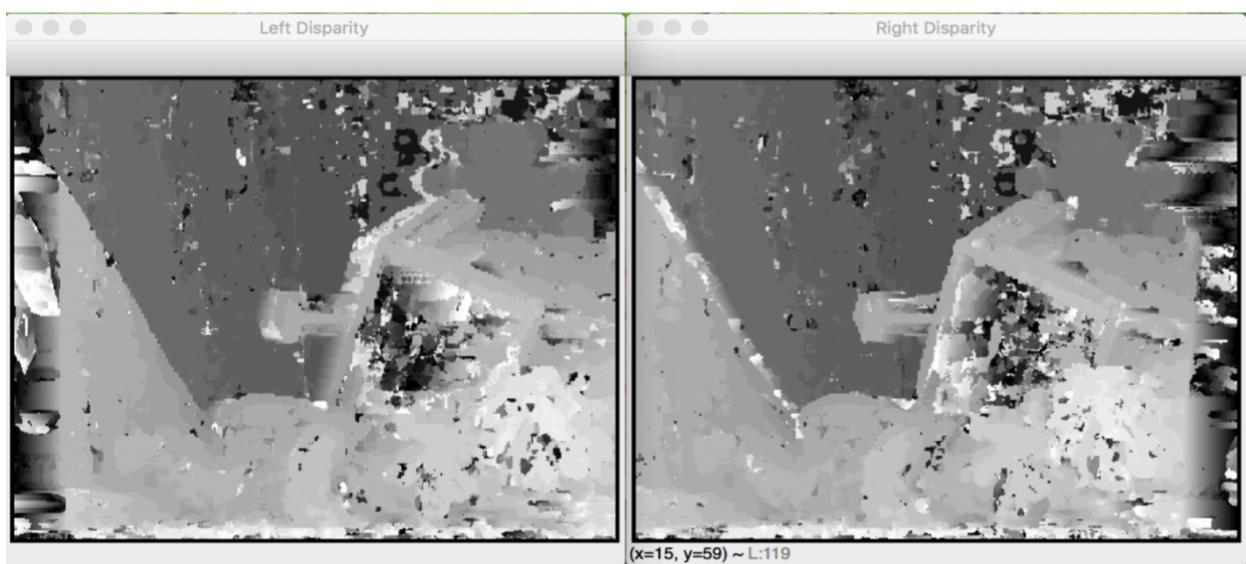
## Some Examples:

### 1. Region Based:

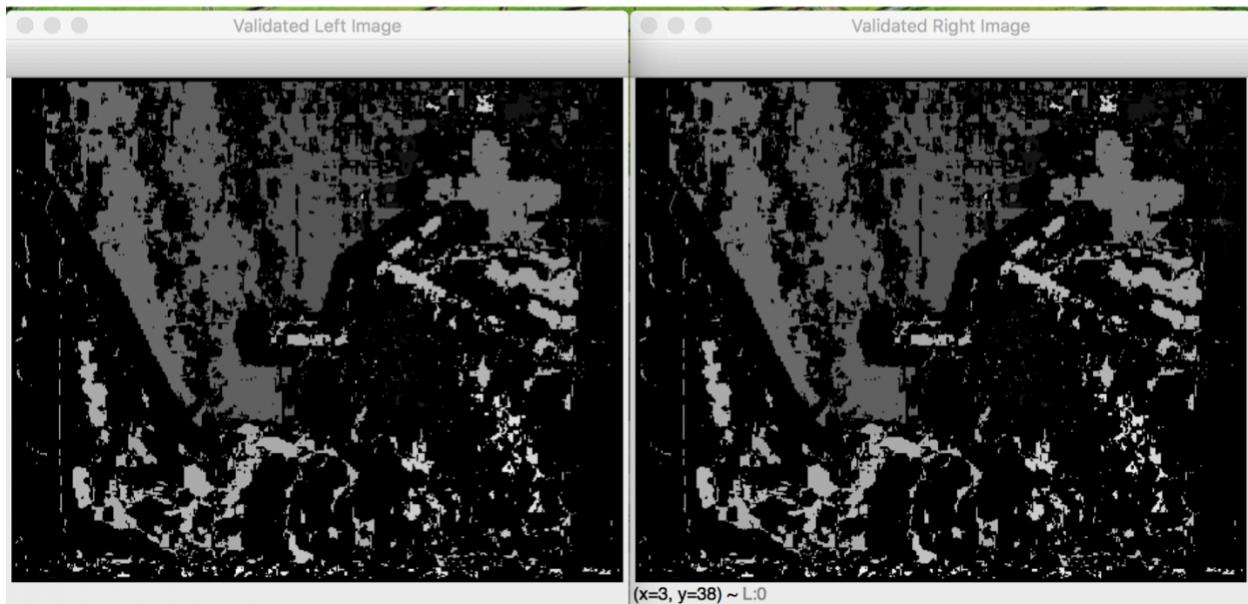
Levels = 2 Template size = 7 Window = 100 Matching score = SSD Input images:



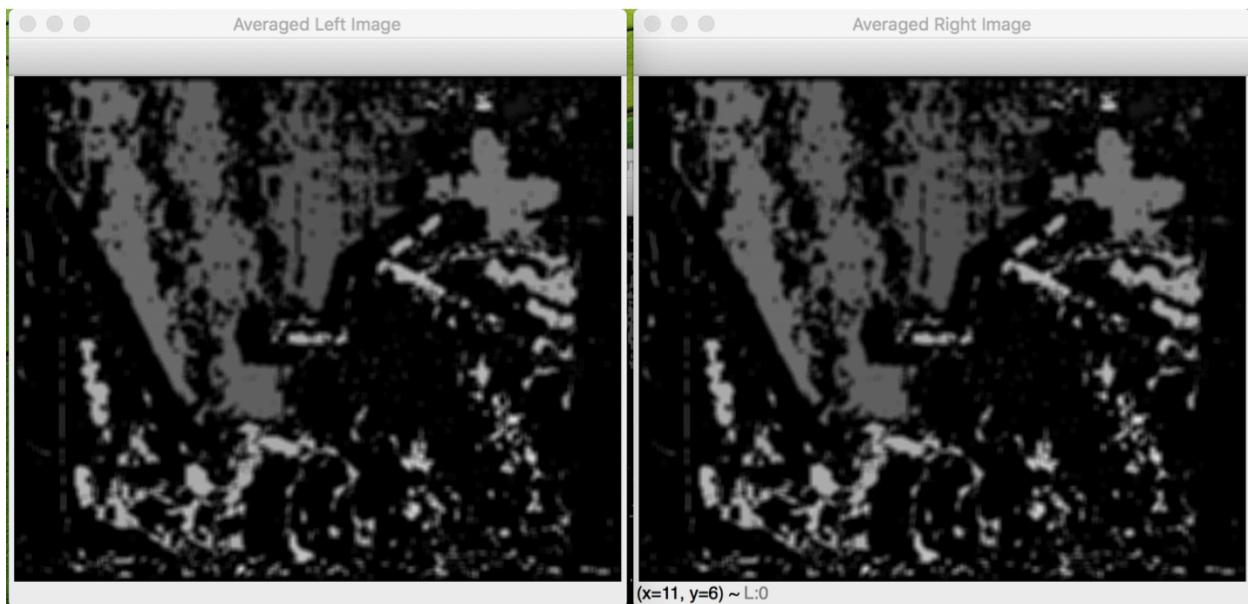
### Disparities:



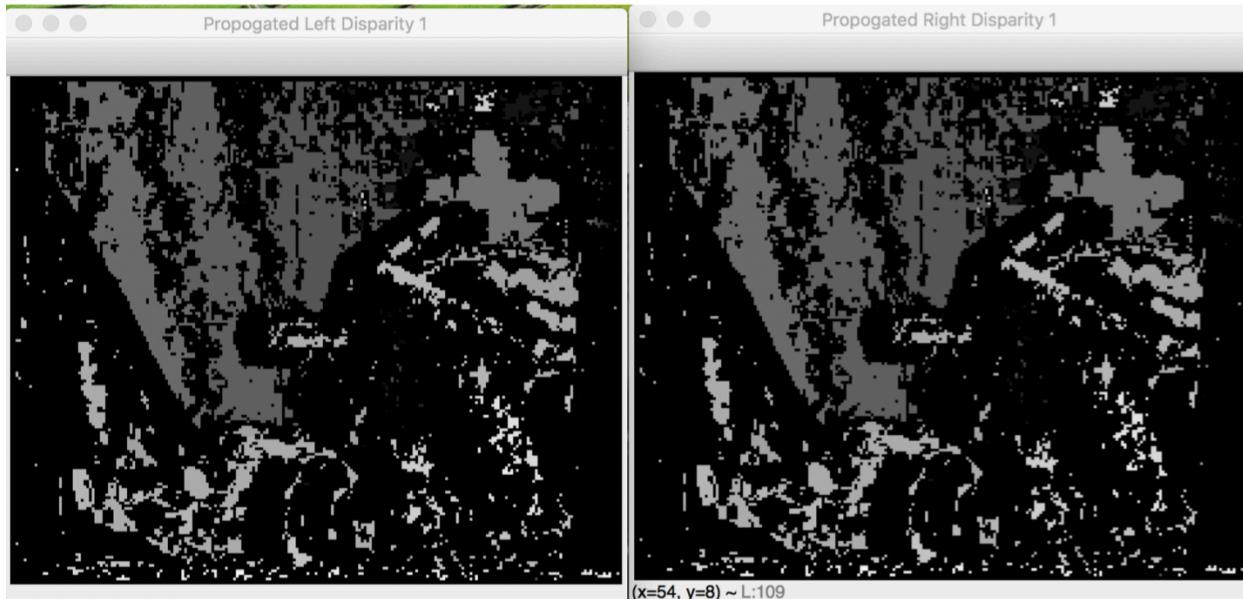
**Validation:**



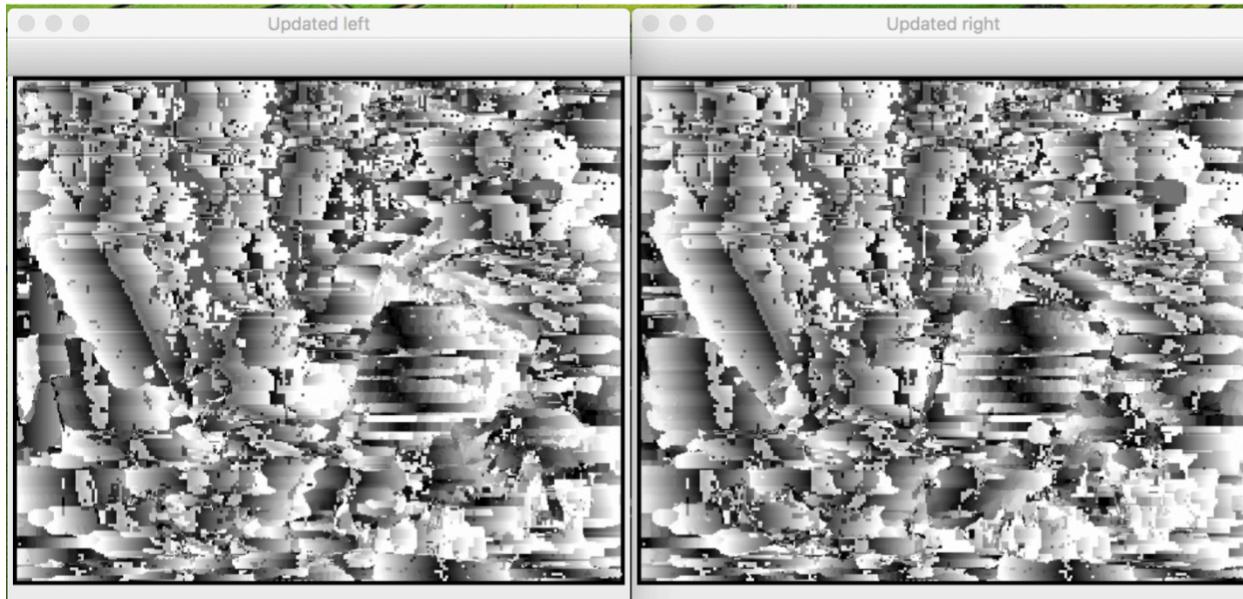
**Averaging:**



Disparity Propagated to lower level:

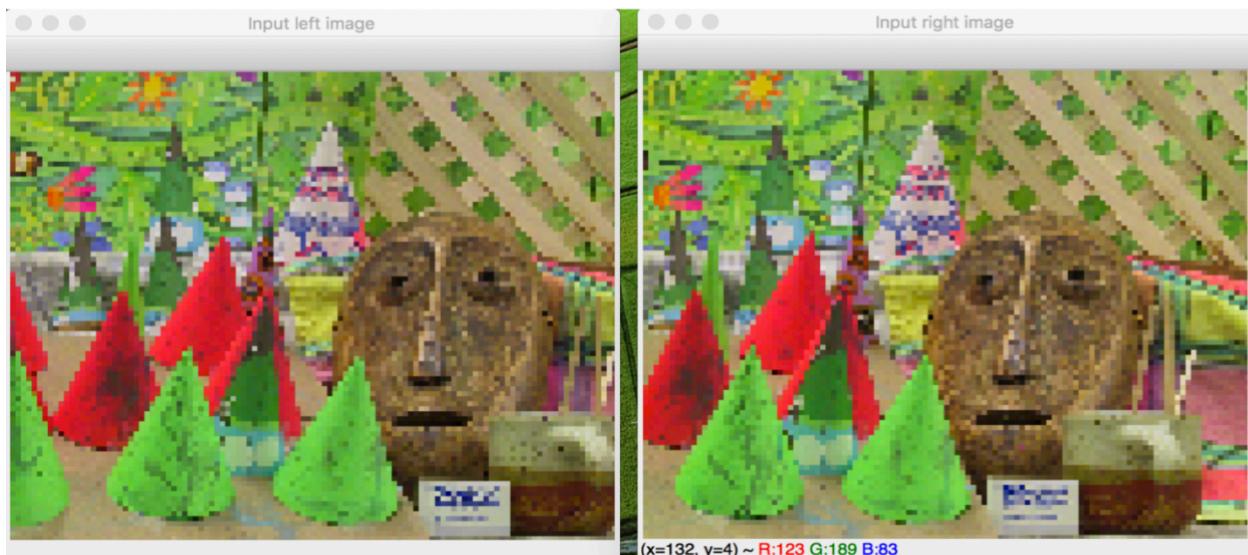


Updated disparity:

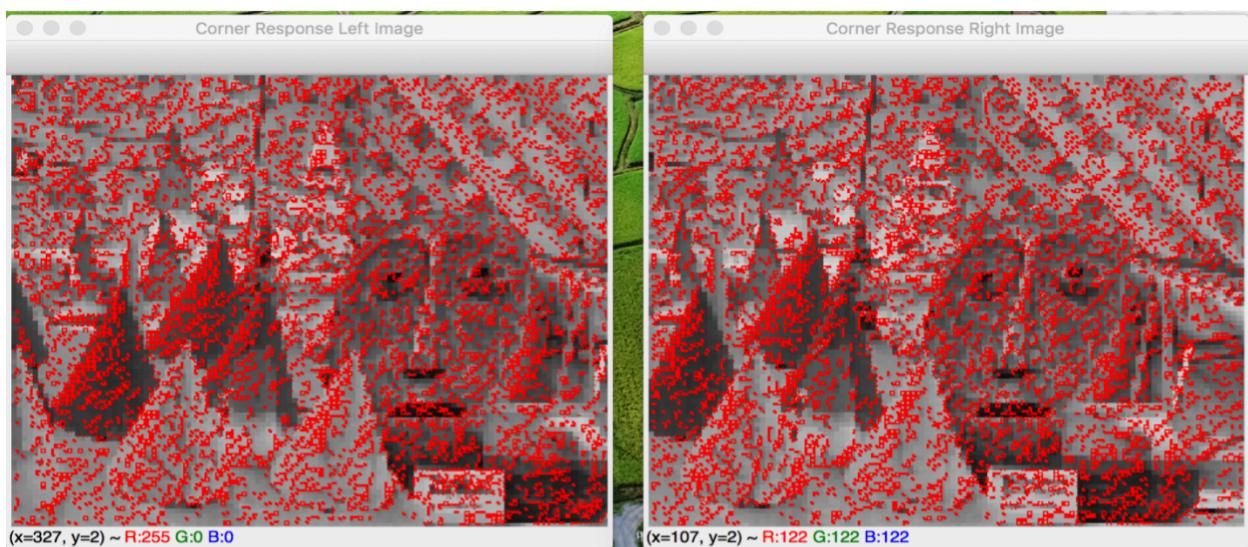


## 2. Feature Based:

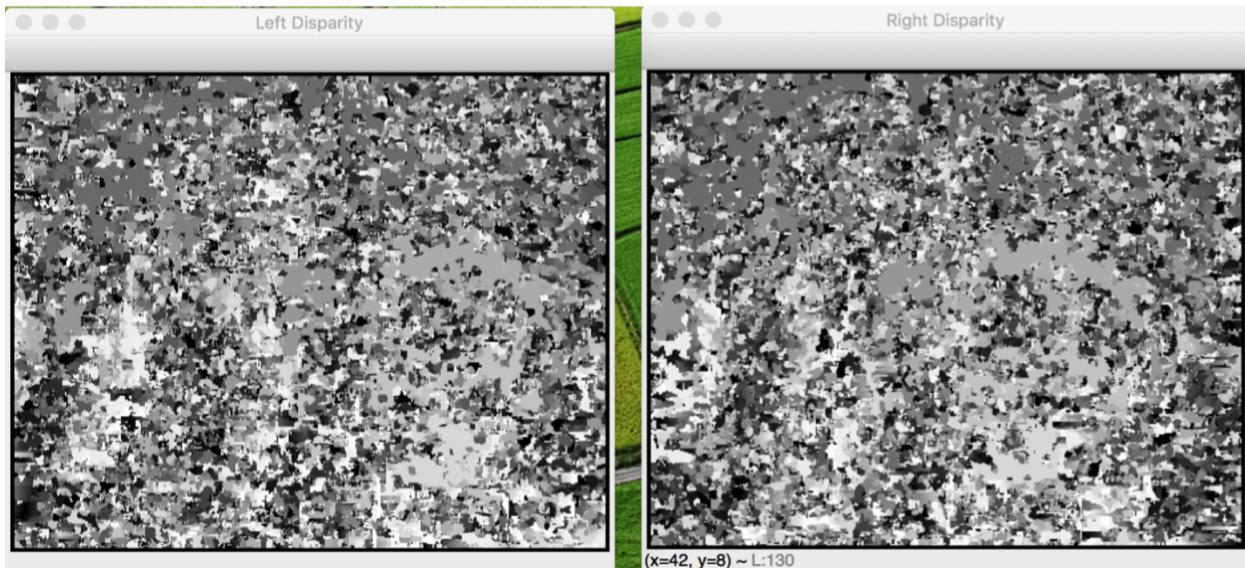
Levels = 3 Template size = 7 Window = 100 Matching score = NCC Input images:



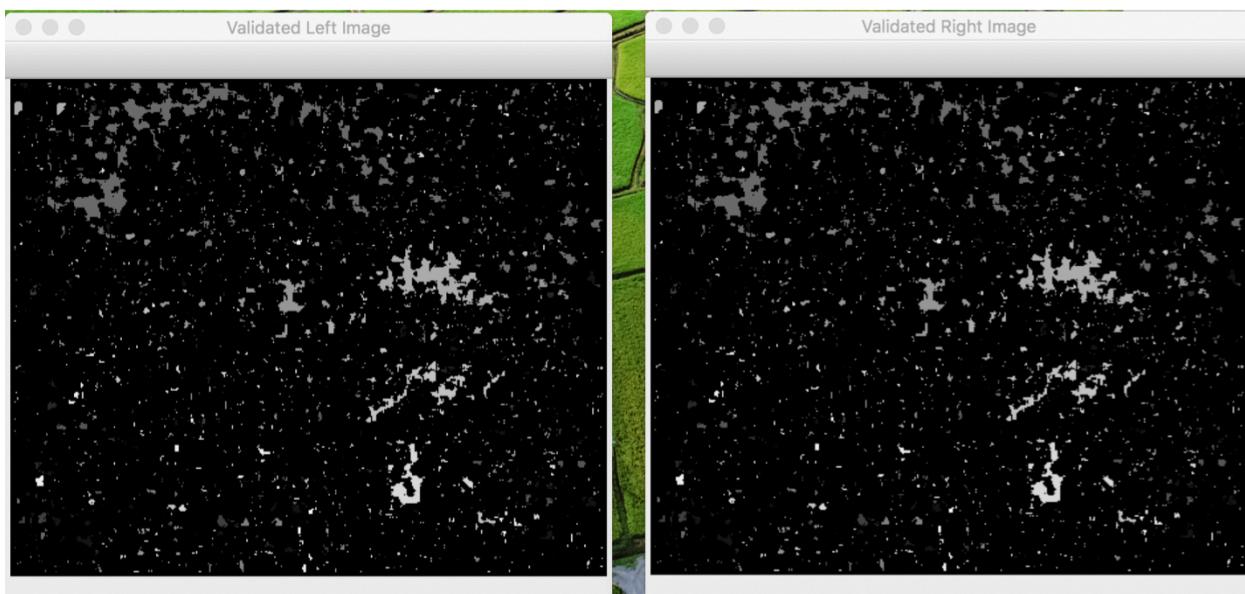
Images after feature detection:



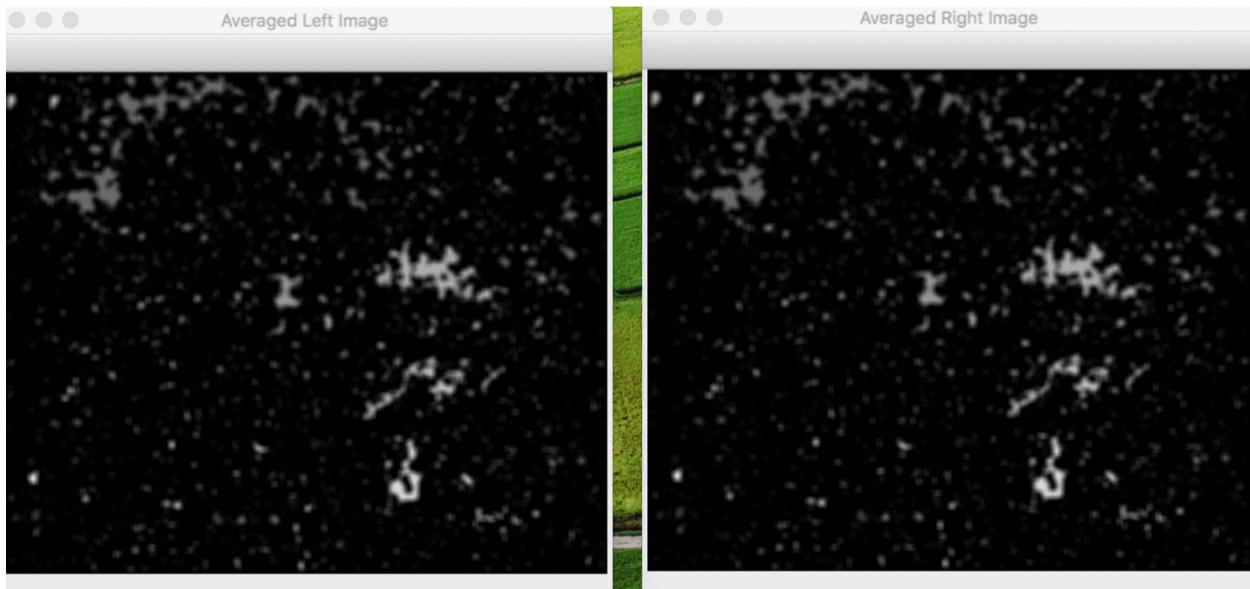
Disparities:



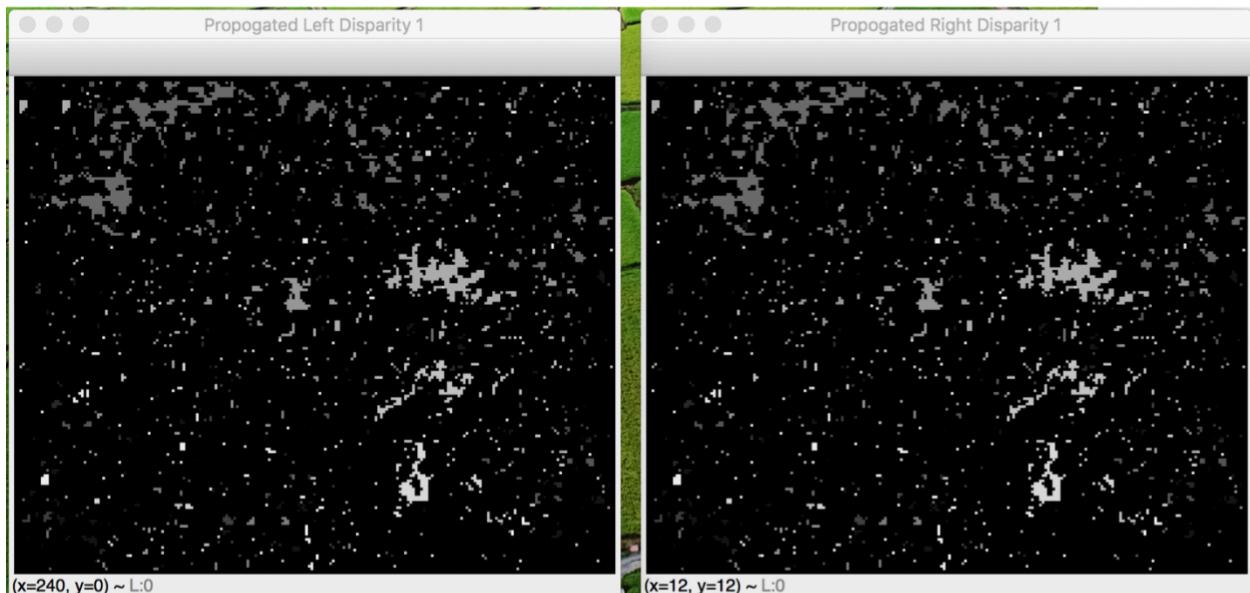
Validity check:

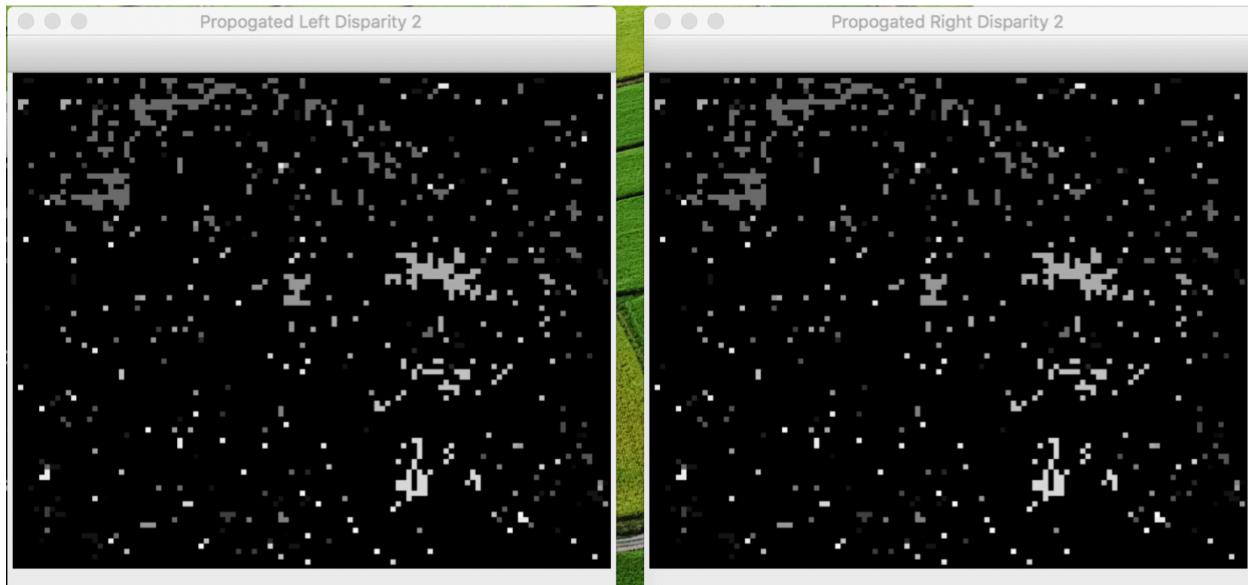


Averaging:



Disparities propagated to lower levels:





Updated disparities:

