

A visual hierarchical framework
based model for underwater image
enhancement

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Problems & Ideas

- Problems of underwater image enhancement
 - Some limitations on color cast correction.
 - Automatic estimation of background light.
- Ideas: A biologically inspired model for color correction
 - An integrated framework is used to mimic the human visual system.
 - The background light can be automatically estimated at the highest level.

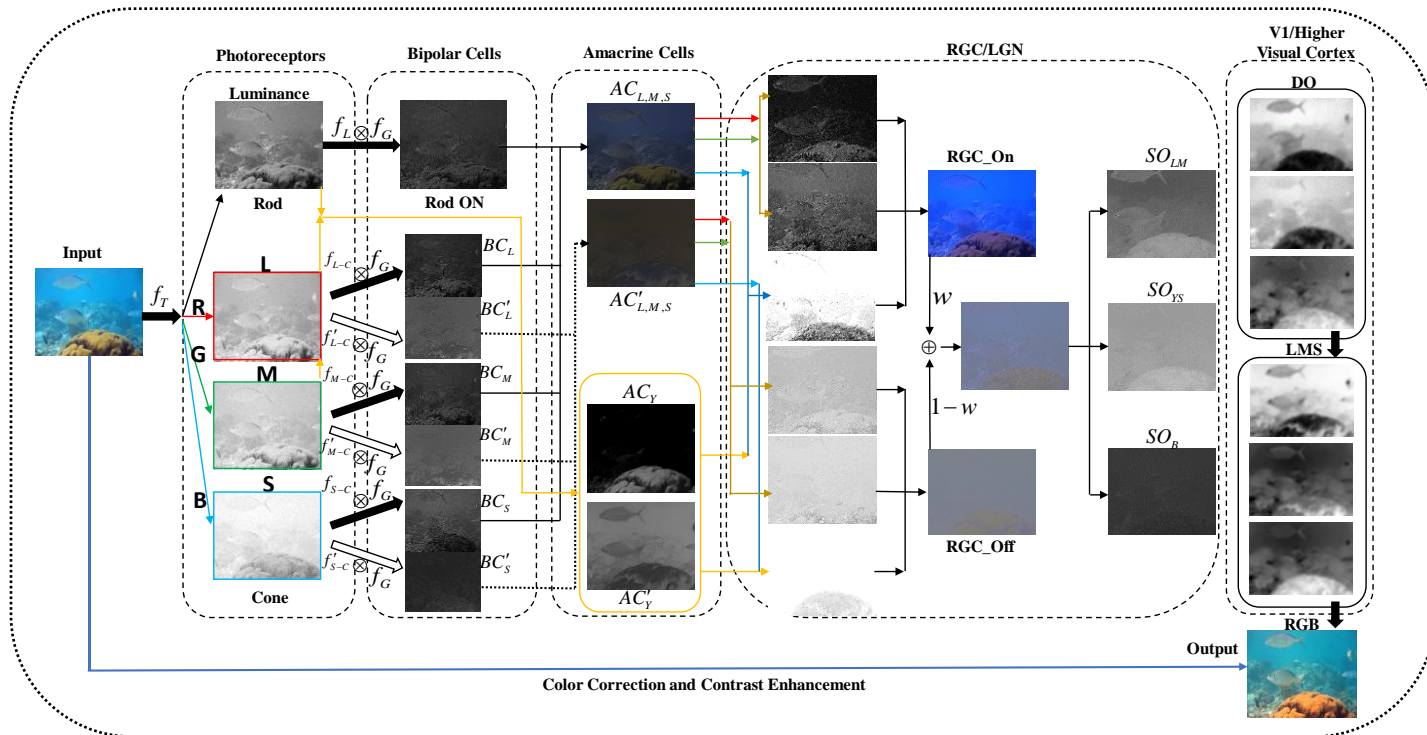


Fig.1 The diagram of the visual hierarchical framework

Main Contributions

- Both color correction and dehazing patterns for improving color, contrast, sharpness and visibility of underwater images.

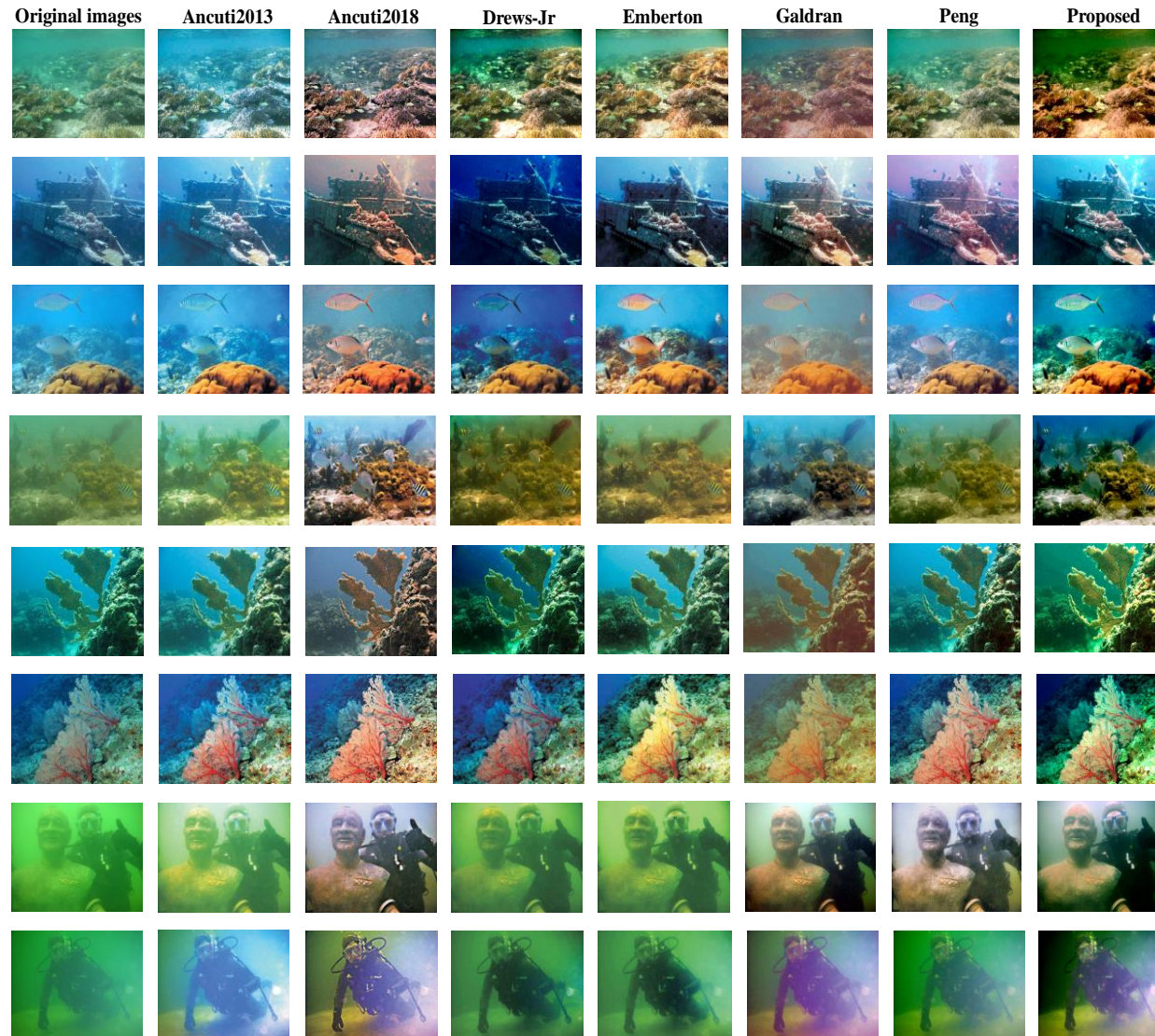


Fig.2 Comparison using different challenging underwater scenes