

# Inside PixInsight

Warren Keller & Ron Brecher

## DAY ONE

9:00	'EASY AS Pi' Introductions and Workshop Overview
9:30	<b>The PixInsight Desktop Environment</b> <ul style="list-style-type: none"><li>• User Interface</li><li>• Global Settings</li><li>• Readout Options</li></ul>
10:15	<b>BREAK (15 min)</b>
10:30	<b>Preprocessing Part 1</b> <ul style="list-style-type: none"><li>• Evaluating subframe quality with <b>Blink</b></li><li>• Data reduction with <b>BatchPreprocessing (BPP)</b> script</li><li>• The Power of Projects</li></ul>
12:00	<b>LUNCH (60 min)</b>
1:00	<b>Preprocessing Part 2 (Lightness)</b> <ul style="list-style-type: none"><li>• <b>ScreenTransferFunction (STF)</b></li><li>• <b>DynamicCrop</b></li><li>• Background Modelization with <b>ABE and DBE</b></li><li>• Linear noise reduction with <b>MultiscaleLinearTransform</b></li></ul>
2:30	<b>BREAK (15 min)</b>
2:45	<b>Preprocessing Part 3 (Chrominance)</b> <ul style="list-style-type: none"><li>• Create a color image with <b>ChannelCombination</b></li><li>• <b>DynamicCrop</b></li><li>• Background Modelization with <b>DBE</b></li><li>• Balance color with <b>ColorCalibration</b></li><li>• Linear noise reduction with <b>MultiscaleLinearTransform</b></li></ul>
3:30	<b>One-Shot Color Considerations</b> <ul style="list-style-type: none"><li>• Determine Bayer Matrix setting with <b>Debayer</b></li><li>• <b>BatchPreprocessing</b> script with OSC FITS and DSLR RAW files</li></ul>
5:00	<b>END OF DAY ONE</b>

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## DAY TWO

9:00	Q & A / Review of Day 1
9:15	<b>Nonlinear Processing Part 1</b> <ul style="list-style-type: none"><li>• Delinearization with <b>STF and HistogramTransformation</b></li><li>• Combining Lightness and Chrominance with <b>LRGBCombination</b></li><li>• Clones and Luminance Mask basics</li><li>• <b>TGVDenoise</b></li></ul>
10:15	<b>BREAK (15 min)</b>
10:30	<b>Nonlinear Processing Part 2</b> <ul style="list-style-type: none"><li>• Adjusting brightness, contrast, and saturation with <b>CurvesTransformation</b></li></ul>
11:00	<b>Process Your Own Data I -- Individual Coaching</b>
12:00	<b>LUNCH (60 min)</b>
1:00	<b>Making and Using Masks</b> <ul style="list-style-type: none"><li>• Intro to <b>RangeSelection</b> and <b>StarMask</b></li><li>• <b>AdvStarMask</b> and <b>GAME</b> scripts</li><li>• Combining masks with <b>PixelMath</b></li></ul>
1:45	<b>Nonlinear Processing Part 3</b> <ul style="list-style-type: none"><li>• Contrast enhancement with <b>LocalHistogramEqualization</b></li><li>• <b>SCNR</b></li></ul>
2:15	<b>BREAK (15 min)</b>
2:30	<b>Process Your Own Data II -- Individual Coaching</b>
3:30	<b>Nonlinear Processing Part 4</b> <ul style="list-style-type: none"><li>• <b>ColorSaturation</b></li><li>• <b>DarkStructureEnhance</b>, <b>WriteJPEG</b>, and <b>DeLinear</b> scripts</li></ul>
5:00	<b>END OF DAY 2</b>