

Inside PixInsight

Warren Keller & Ron Brecher

September 21-23, 2018 MESA, ARIZONA

DAY ONE

9:00	'EASY AS PI' Introductions and Workshop Overview
9:15	The PixInsight Workspace
10:15	BREAK (15 min)
10:30	Processing Example, Part 1 <ul style="list-style-type: none">• Evaluating subframe quality (Blink)• Data reduction (BatchPreprocessing script)
12:00	LUNCH (60 min)
1:00	Processing Example, Part 2 <ul style="list-style-type: none">• Crop (DynamicCrop)• Background modelization (ABE)• Linear noise reduction (MultiscaleLinearTransform)
2:30	BREAK (15 min)
2:45	Processing Example, Part 3 <ul style="list-style-type: none">• Delinearization (stretching) (HistogramTransformation)• Brightness and contrast adjustments (LocalHistogramEqualization)
3:30	Additions for Tricolor and OSC Images <ul style="list-style-type: none">• Debayering (w/ BPP)• Create a color image (ChannelCombination)• Balance color (ColorCalibration)• Saturation (CurvesTransformation and ColorSaturation)• Color noise reduction (SCNR)
4:30	END OF DAY ONE

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DAY TWO

9:00	More Preprocessing, Part 1 <ul style="list-style-type: none">• Limitations of BPP• SubframeSelector• StarAlignment• ImageIntegration
10:15	BREAK (15 min)
10:30	More Preprocessing, Part 2 (1hr) <ul style="list-style-type: none">• CosmeticCorrection• DynamicBackgroundExtraction• PhotometricColorCalibration
11:30	Making and Using Masks, Part 1 <ul style="list-style-type: none">• Introduction to StarMask and RangeSelection• Luminance mask basics
12:00	LUNCH (60 min)
1:00	Deconvolution <ul style="list-style-type: none">• Creating deconvolution support files• Defining the Point Spread Function (DynamicPSF)
2:30	BREAK (15 min)
2:45	Process Your Own Data <ul style="list-style-type: none">• Individual Coaching
3:30	Making and Using Masks, Part 2 <ul style="list-style-type: none">• Clones• MorphologicalTransformation• Combining masks (PixelMath)• GAME script• AdvStarMask script
4:00	Nonlinear Noise Reduction (TGVDenoise)
4:30	END OF DAY TWO

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DAY THREE

9:00	Blending Luminance and Color Data (LRGBCombination)
9:30	High Dynamic Range Images <ul style="list-style-type: none">• Compressing dynamic range (HDRMT)• Creating an high dynamic range image (HDRComposition)
10:15	BREAK (15 min)
10:30	The Power of PixelMath (45m) <ul style="list-style-type: none">• Blending versions from before/after a process• Combining Narrowband with RGB• Reducing background mottling
11:15	Process Your Own Data <ul style="list-style-type: none">• Individual Coaching
12:00	LUNCH (60 min)
1:00	Useful Scripts <ul style="list-style-type: none">• DarkStructureEnhance• StarReduction
2:00	Process Your Own Data III <ul style="list-style-type: none">• Individual Coaching
2:45	BREAK (15 min)
3:00	Customizing PixInsight's Settings <ul style="list-style-type: none">• Global Preferences• Color Management Setup
4:15	Wrap-up and Course Evaluation
4:30	END OF WORKSHOP