

**AMI + KPI Workshop**  
**July 25, 26, 27 2022**

Room B-2482  
Universite de Montreal  
Campus MIL  
1375 avenue Therese Lavoie-Roux  
Montreal, QC, H2V 0B3

Zoom Link (Main channel open 8:30-18:30 every day)

<https://umontreal.zoom.us/j/86512560692?pwd=dGxkZnMxekxHb2FRUjJqZGljeiFZz09>

**Participants:**

<b>In person</b>	<b>Remote</b>
Doug Johnstone	Anand Sivaramakrishnan (STSci)
Dori Blakely	Rachel Cooper (STSci)
Frantz Martinache	Joel Sanchez Bermudez (Mexico)
Peter Tuthill	Alexandra Greenbaum (West Coast)
Jens Kammerer	Marie Ygouf (West Coast)
Thomas Vandal	Matthew De Furio (Michigan)
Katherine Thibault	Ben Pope (Australia)
Loic Albert	Laurent Pueyo (STSci)
David Lafreniere	Anthony Soulain (France)
Neil Cook	Kevin Volk (STSci)
Etienne Artigau	
Rene Doyon	

## Agenda

### Day 1

<b>9:00</b>	Setting up locally - internet connexions (Loic or David) Downloading Commissioning analysis scripts (Rachel or Thomas or Neil)
<b>9:30</b>	List of GO/GTO/ERS/Commissioning AMI or KPI programs
<b>9:45</b>	Transition disks program (Doug)
<b>10:15</b>	Detector artifacts Charge diffusion (Anand?) 1/f noise (Loic) Intrapixel response and cross-hatching (Loic)
<b>11:00</b>	Ops Concept for AMI+KPI - Target acquisition - Dither + sub-dither positions - Reference field observation (exploited for KPI)
<b>11:30</b>	Description of the AMI + KPI Commissioning Observations (Rachel) - Explain objectives - Observations list - Failed TA -- re-observation
<b>12:30</b>	<b>Lunch</b>
<b>13:30</b>	The 10 analysis scripts (Rachel, Thomas, Neil, Loic) - Go over each script and show results - Think of improvements or additional tests
<b>16:30</b>	Brainstorm on things each person wants to accomplish with existing Commissioning data or simulations in the next 2 days. Are we ready for demanding science requiring $1e+4$ contrasts? (Loic)
<b>17:00</b>	<b>End of the day</b>

## Day 2

<b>9:30</b>	Complex scenes on-going work (Dori)
<b>10:00</b>	JWST Optics (Marshall Perrin) <ul style="list-style-type: none"><li>- Wavefront quality</li><li>- Tilt events</li><li>- Wavefront sensing and adjustments</li></ul>
<b>10:45</b>	NIRISS Pupil (Rachel)
<b>11:00</b>	Kernel phase (Frantz or Thomas)
<b>11:30</b>	Kernel phase / Fouriever (Jens)
<b>12:00</b>	Establish 1 hacking activity per person to perform today.
<b>12:30</b>	Lunch
<b>13:30</b>	Start hacking
<b>16:30</b>	Debriefing. Each person presents their on-going effort.
<b>17:00</b>	End of the day

## Day 3

<b>9:00</b>	Continue hacking
<b>10:30</b>	Peter's on-going work (Toliman)?
<b>11:00</b>	Ben + Louis Desdoigts's work (Louis - remote)
<b>11:30</b>	Coronagraphic image post-processing with knowledge of the wavefront (Marie Ygouf)
<b>11:45</b>	Wavefront informed Companion search (Matthew - remote)
<b>12:00</b>	Hacking resumes
<b>12:30</b>	Lunch
<b>14:00</b>	Hacking continues
<b>15:00</b>	Present hacking results / on-going work
<b>15:30</b>	Future areas of work

## Internet access

- 1) Use the “UdeM visiteurs” network
- 2) Launch a browser.

Two options to “register” exist. We suggest you use option A (not option B - the facebook one).

<https://wiki.umontreal.ca/pages/viewpage.action?pageId=178001115#expand-OptionACreruncompte>