Thermal-IR Plenary Feedback

Chris Packham

On behalf of the MICHI team

Primary MICHI Science Cases

1. Exoplanets direct imaging & low spectral R
2. Exoplanets at high spectral R
3. Protoplanetary discs imaging & low spectral R
4. Protoplanetary discs at high spectral R
5. AGN imaging & low spectral R

Primary MICHI Science Cases: Slight Reorganization

1. Exoplanets
    1. Direct imaging & low spectral R
    2. High spectral R
2. Protoplanetary discs
    1. Imaging & low spectral R
    2. High spectral R
3. AGN imaging & low spectral R
4. Supporting broad science cases

MICHI & PSI

- We discussed synergy between MIRAO, MICHI, & PSI
  - More work needed to understand this
  - Part of feasibility study?

Future Landscapes

- Be ready for the JWST revolution, integrate into instrument design
  - Take advantage of the delay of 2nd gen. instruments
- Prepare & optimize for JWST (& ALMA) follow-up
- A full data 'pipeline' is integral to our plans
- Continue to explore collaborations with METIS to share knowledge, risk, costs, personnel, etc.

Possible MICHI Team Leads

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0th Plan for Response TMT CfP

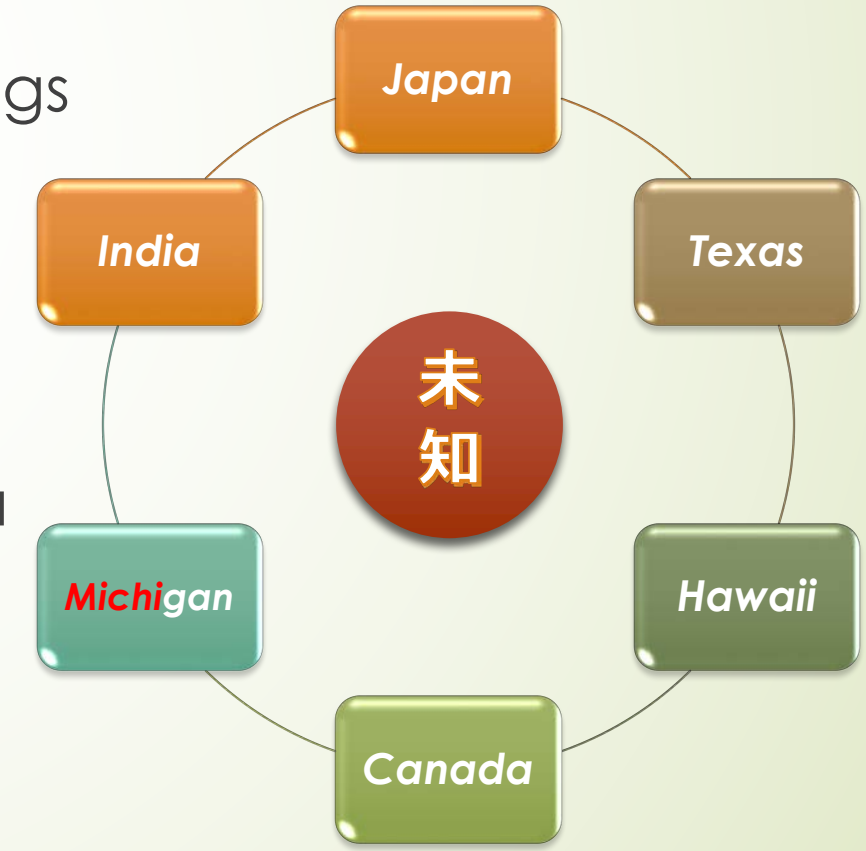
- 6 pages on science cases
  - 1.5 page per killer science case, 3 featured science case
  - Additional 1 page on additional science cases
  - Comparison to ELT, JWST
- 3 pages on instrument feasibility design
  - Drawing on the work we've achieved over the years
  - Special focus on the new advances, as discussed earlier
- 1 page on the team & management
  - Some cost comments

未知 Timescales

- From mid-Nov
  - 5 primary science cases identified and to be presented in India
  - Revisions and suggestions as needed
  - At TMT SF discussion of division of instrument work packages
- Mid-Nov to Mid-Dec
  - 5 primary science cases documented and submitted to Honda-san
  - 3 pages of the instrument concept produced
- Mid-Dec to Jan 1
  - Collation of the science and technical pages
  - 1st draft of division of instrument work packages
- Jan 1- Mar 1
  - Agreement, endorsement & division of instrument work packages
    - Face to face meeting of stakeholders almost certainly needed, location/date TBD
- Mar 1
  - Document ready for submission

Work Packages for the Feasibility Study

- 0th wish/plan in FS if we 'win' the WP
  - JP - Optical design
  - JP, TX - Trade study of IG vs. gratings
  - TX – PM, SE
  - HI, CA - Daytime AO, MIRAO
  - US - Array testing
  - IN – Software control system, data reduction 'pipeline', polarimetry



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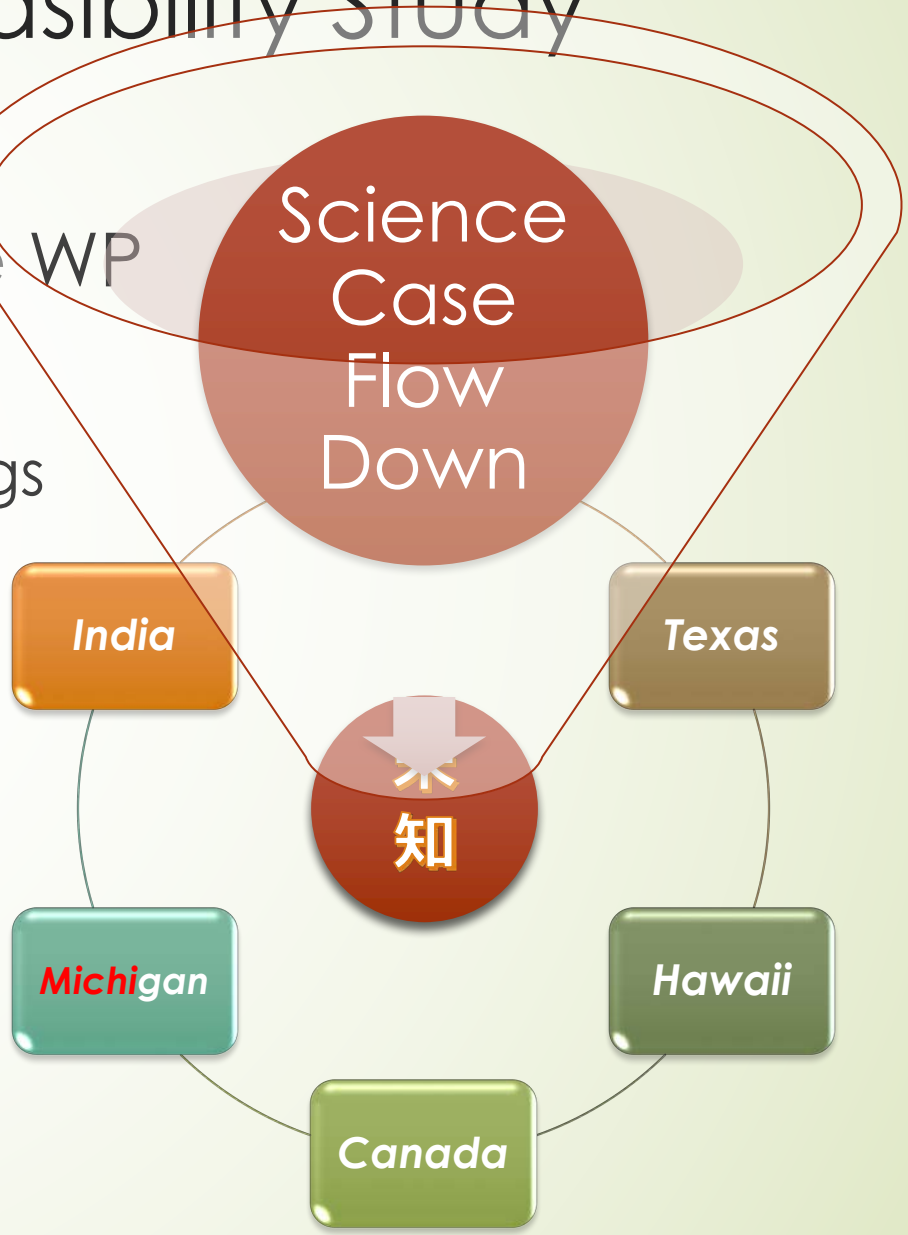

WP Comments/Questions

1. Goal for our WP submission is an endorsement from the TMT SAC/Board
    1. And of course the money helps!
2. What are the timescales for post-WP submission? What is next?
    1. When could we hope for funds to continue work?
    2. What are the deliverables for the feasibility study?
        1. Reviews, documents, costing (WAG, ROM, 30%, 10%), etc.?
3. TMT SF is crucial to our endeavors, we looking forward to it continuing
    1. Thanks to Mark for his work on this over the years

Thanks!