# Concluding Remark



#### 3 pillars of science (theory)

		[A01] Inflation Sasaki (Kyoto)	[A02] fluent. & struct. Takahashi (Tohoku)	[A03] Dark Energy Sugiyama (Nagoya)
ŀ	[B01] CMB polariz. Iazumi (KEK)	$\zeta, r, n_s$ direct evidence	CMB lensing isocurv. $m_{ u}, N_{ u}$	cosmo. params CMB lensing
	[B02] Subaru galaxy imaging iyazaki(NAOJ)	Lensing $\rightarrow b(k)$ $\rightarrow P_{\text{primod}}(k)$	weak lensing $m_{ u}$ non-std. DM	weak lensing SNe, $\gamma$
	[B03] galaxy spectroscopy akada(KIPMU)	primord. NG $\Omega_K, n_s, lpha_s$	isocurv. DM in dSph gals. $P(k), m_ u$	BAO, RSD $\Omega_{ m de}(z), \gamma$
U	[B04] TMT Jsuda (NAOJ)	QED coupling (α) space time var.	Lyman-α forests IGM	direct detection of acceleration

important observables at each intersection

#### C01: ultimate, theory Ooguri(Caltech)

Universe before inflation? Birth of time? quantum gravity? string? other dims? end of Universe? Multiverse?

CMB lensin

veak lensing

SNe. y

BAQRSD  $S_{de}(z), \gamma$ 

宇宙加速膨張 の直接検出

/X00: organization Murayama (IPMU)

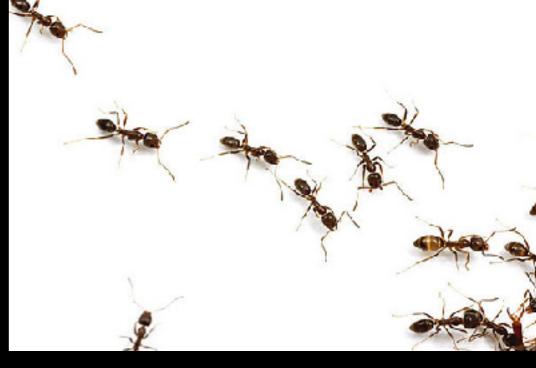
D01: ultimate analysis Komatsu(MPA)

orests

nan-

IGM

### ideas



- write papers with other groups!
- modified gravity A01,03:
  - testability using Web App by D01
  - connection to string theory C01
  - theory space and HSC constraint: B02
- direct measurement of acceleration B04&D01
  - study of systematics, e.g., motion of solar system
- time-dependent physical constants A01,03,C01,D01
- software tools and analysis methods on CMB: B01&D01
- multi-messenger:
  - gravitational wave, neutrinos, cosmic rays
- papers on instrumentation also needed
- "unexpected"

#### near term

- public lectures all around Japan
- schools for students & postdocs with career development workshops
- press conference on HSC SSP results Feb 27
- unblinding HSC data on cosmic shear!
- Hope for
  - LiteBIRD approval
  - TMT

## Big thanks to local organizers!







## Keep up the good work and have fun!