

Site report on physics plan from japan

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Available lattices

flavors	Fermion/gauge	Collaboration	a[fm]	lattice	#config
2	Clover/Iwasaki	CP-PACS	0.20	12x24	1000x4
			0.15	16x32	1000x4
			0.10	24x48	800x4
2+1	Clover/Iwasaki	CP-PACS/ JLQCD	0.12	16x32	800x5x2
			0.10	20x40	800x5x2
			0.07	28x56	600x5x2

PACS-CS: status and plan

2+1 flavor QCD

- Wilson-clover quark action with c_{SW}^{NP} and Iwasaki gauge action
- DDHMC for ud quark and UV-filtered PHMC for s quark

Status

- $32^3 \times 64$ at $\beta = 1.90$ ($a^{-1} \approx 2$ GeV)
- running at $m_{ud} = 3, 6$ MeV with $m_s \approx m_s^{ph}$
- $m_{ud} \geq 13$ MeV finished

Plan

- simulations with $L \geq 4$ fm at $\beta = 2.05, 1.9, 1.83$ (2008 ~)
- public release date undecided

JLQCD: status and plan

Overlap fermion/Iwasaki gauge + topology fixing term

- 2 flavor QCD: $16^3 \times 32$, $a \sim 0.12\text{fm}$, $m_q > m_s/6$
 - 10k trjs ready at each quark mass, $Q=0$
 - Algorithm and spectrum papers in preparation
 - **Configs will be public in early 2008**
- 2+1 flavor QCD: $16^3 \times 48$, $a \sim 0.12\text{fm}$, $m_q > m_s/6$
 - Now generation in progress
 - Public release date undecided (2008 summer?)
- Plan
 - 2+1 flavor on $24^3 \times 48$ lattice (2008-)