

ULB

EX

IIHE **6**

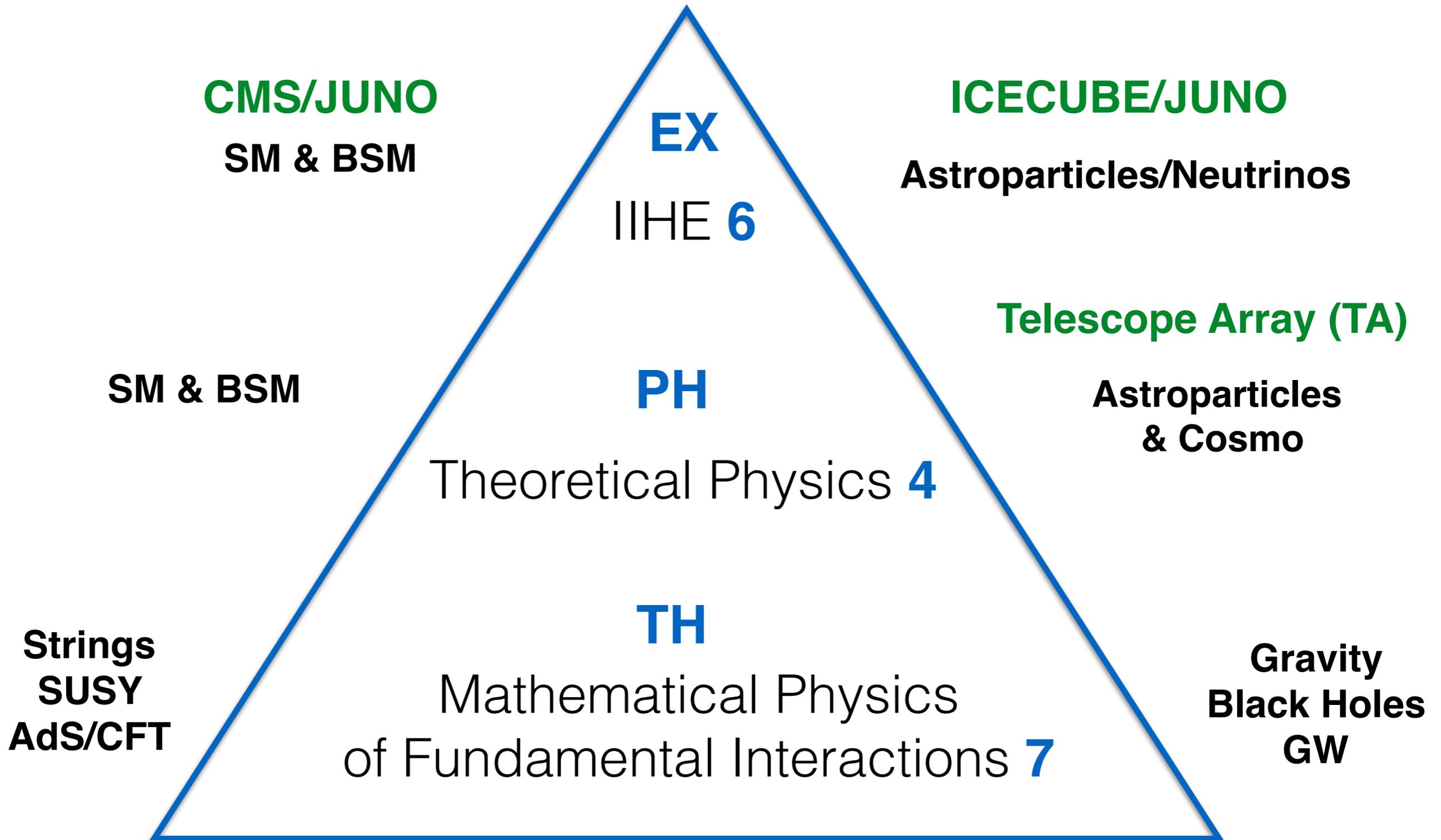
PH

Theoretical Physics **4**

TH

Mathematical Physics
of Fundamental Interactions **7**

ULB



ULB

EX

BEH
& beyond

DM@LHC
 Z', ν

HE neutrinos
(U)HECR

PH

EW SB
(SM & BSM)

BAU, DM
 ν , COSMO
INFLATION

UHECR

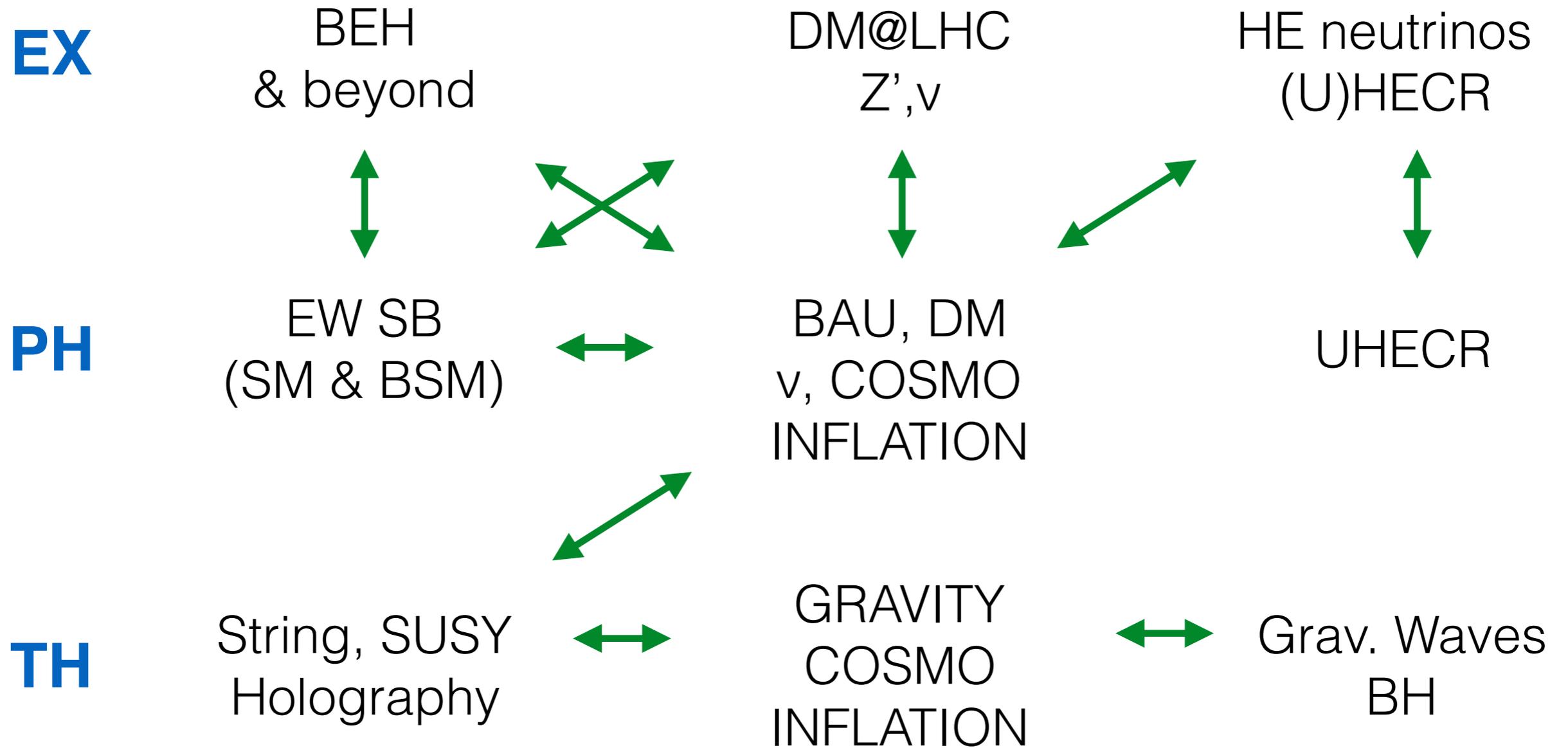
TH

String, SUSY
Holography

GRAVITY
COSMO
INFLATION

Grav. Waves
BH

ULB



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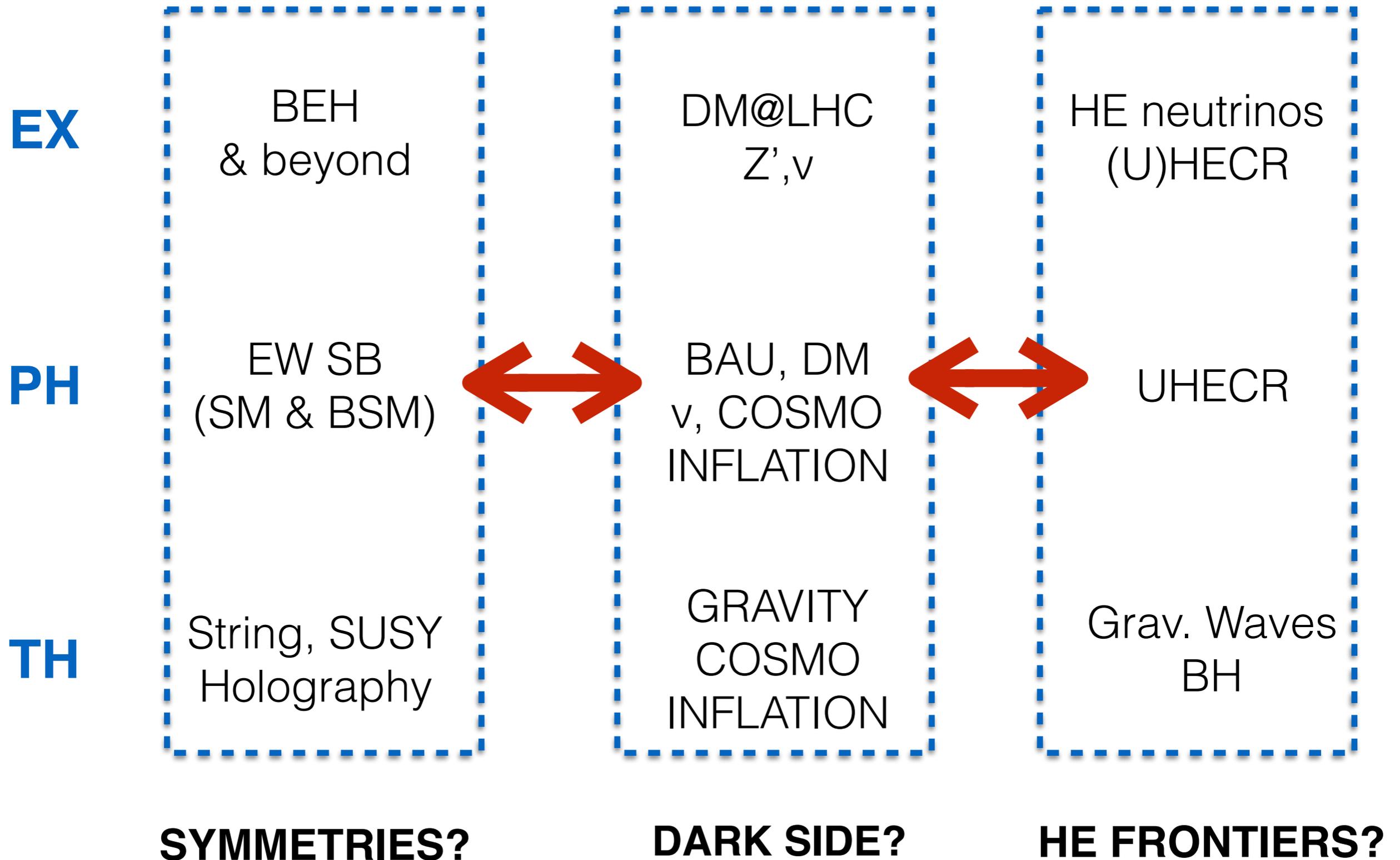
Grav. Waves
BH

SYMMETRIES?

DARK SIDE?

HE FRONTIERS?

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SYMMETRIES?

DARK SIDE?

HE FRONTIERS?

WP1: SYMMETRIES OF NATURE (?)

Goal: Origin of symmetries (and their breaking) within and (way) beyond the SM

Topics: BEH and beyond; Flavor physics (leptons & quarks); Dynamics (weak and strong) of SB; Symmetry emergence; Holography; ...

Exps: CMS, JUNO,...

WP2: THE DARK SIDE (?)

Goal: Origin of the dark sides of the Universe

Topics: Dark matter; Dark energy; Inflation; Gravity; Black Holes;...

Exps: CMS, JUNO, ICECUBE, (eLISA), Planck, Euclid,...

WP3: FRONTIERS OF THE UNIVERSE (?)

Goal: Origin of the highest energy phenomena in the Universe

Topics: UHE cosmic rays and neutrinos; Gravitational Waves; Multi-messenger approaches;...

Exps: ICECUBE, TA, eLISA, LOFAR,...

back up slides

ULB

EX

BEH
& beyond



DM
New Forces
(Z' , ...)



HE neutrinos
(sources, DM)



PH

EW SB
(SM & BSM)



BAU, DM
 ν , COSMO



UHECR
(sources)



TH

String, SUSY
AdS/CFT



GRAVITY



Grav. Waves
BH

ULB

