

A View on Some Nuclear and High Energy Labs

고병원 (KIAS)

List

- KEK
- BNL
- Fermi Lab
- St. Petersburg NPI

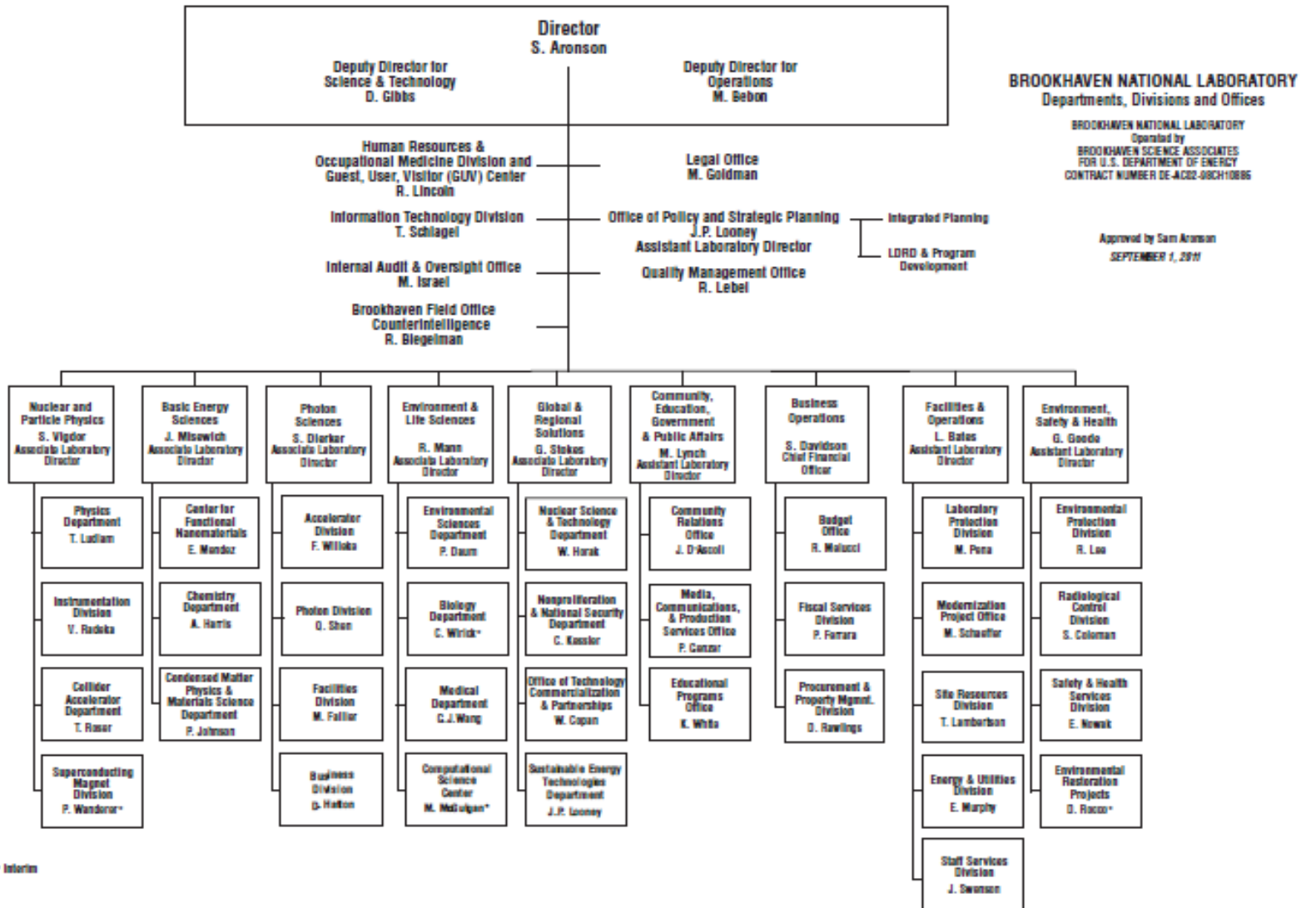
KEK (Japan)

- Electron-positron collider: B factory, ILC
- Photon Factory
- J-PARC: Nuclear and Particle, Material and Life Science
- Advanced Accelerators
- Advanced Tech. Support and Infra R&D
- Theory Center

KEK Theory Center (Japan)

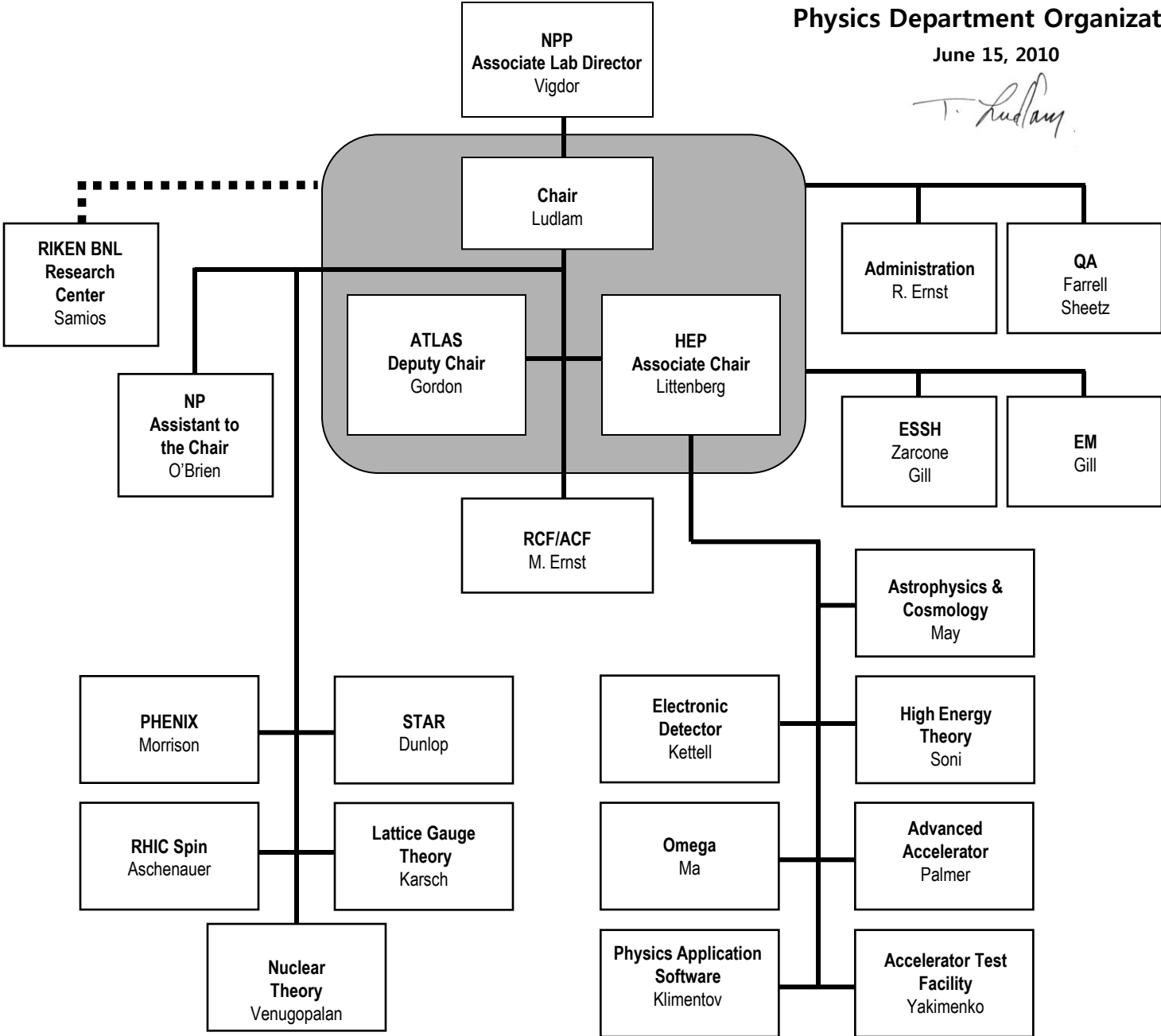
- Particle Theory Phenomenology
- Lattice QCD
- String theory and QFT
- Cosmology
- Hadron and Nuclear Physics
- 교수 8(+1)명, 부교수 10명, 조교수 7명
- 연구원 37명, 대학원생 38명, 직원 4명

BNL (USA)



Physics Department Organization

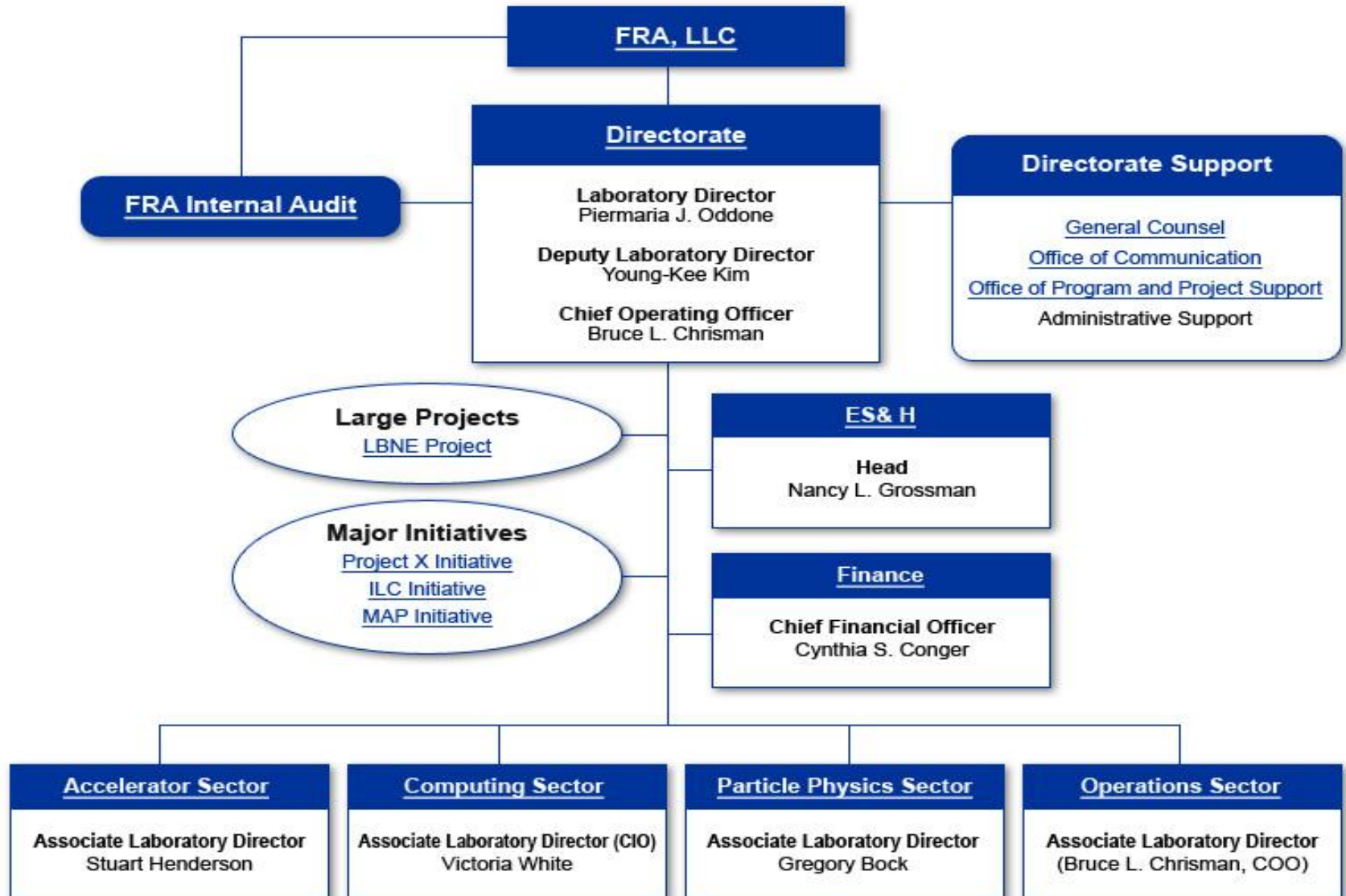
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BNL Physics Theory

- High Energy Theory : 20 staffs + 1 admin.
- Lattice Gauge Th. : 6 staffs + 1 admin. + 10 affiliated members
- Nuclear Theory : 15 staffs + 1 admin.
- RIKEN BNL Research Center :
23 members + 1 admin.
- Astrophysics and Cosmology: New group with 5 members
- Total: 69 staffs

FNAL Organization



FNAL Theory Group (USA)

❖ Theory Group

- 16 staffs
- 9 postdoctors
- 5 students (?):
Fermilab Fellowship
Recipients
- 9 associated staffs
- 1 administrative staff

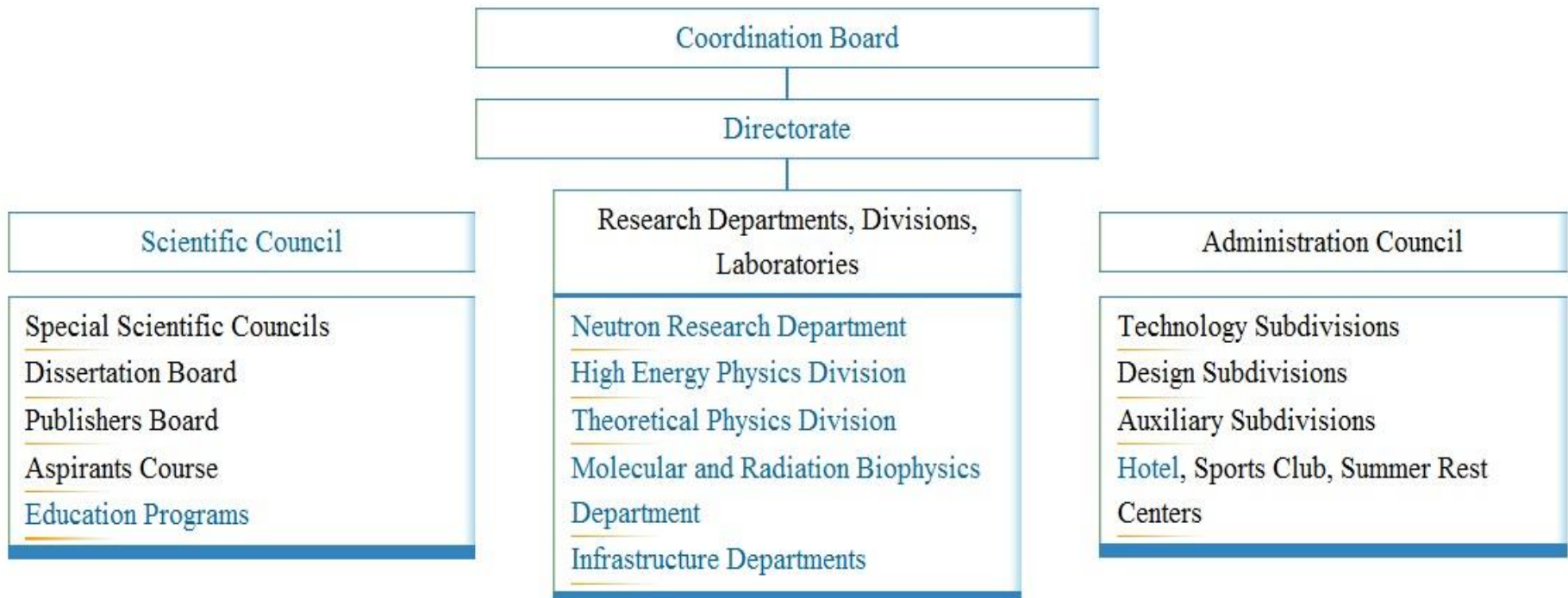
❖ Theoretical Astro

- 5 staffs
- 1 Schramm Fellow
- 3 postdoctors
- 1 admin. staff

Total : 21 staffs, 13 postdoctors

PNPI (Russia)

Structure of PNPI RAS



Theory Division of PNPI

- QFT : 1+7
- High energy theory : 1+6
- Strong interaction : 4+1(+1)
- EW interaction : 3+3
- Nuclear theory : 7+2+(3)
- Condensed Matter : 3+5
- Atomic theory : 1+5
- Physics of nuclear reactor : 1+8
- Ecological physics : 1+1
- Total : 22 + 38 + (4)

Summary

- Experiment + Theory
- 다수의 박사급 연구원 및 교수들이 필요
- 박사급 인력 양성 → 경쟁력 있는 연구자들이 대학 또는 연구소에서의 적절한 직장을 얻는 것이 절대적으로 필요
- 우수연구인력 양성 및 유지가 최우선 순위
- 박사과정 학생지도가 장기적으로 바람직

HEP TH in BSI ?

- 이론쪽에 적어도 1,2개의 BSI 적절
PPP, Lattice QCD,
Astrophysics and Cosmology,
Nuclear theory, QFT, String 등을 2개의 연구단으로 ?
- 고에너지 협의회외의 주도적 역할 ?
- 분야별로 개별적인 proposal ?
- 기존 교수들의 역할 ?
- 고에너지 분야 내에서 Open discussion
필요

We are all friends ^^