

|     | (Co-)Spokespersons           | Affiliation                                  | Title of the experiment  | Approval status (PAC recommendation)   | Beamline                                     | Status                                | From 2014                                      | From 2016                                   |
|-----|------------------------------|--|--|--|--|---------------------------------------|--|---|
|     |                              |  |  |  |  |                                       | Leading Referees                               | Leading Referees                            |
| E03 | K.Tanida                     | JAEA   | Measurement of X rays from $\Lambda$ Atom  | Stage 2  | K1.8   | In preparation                        | Weise, Shimizu, Zajc, Hatsuda                  | Weise, Aoi, Zajc, Kitano                    |
| P04 | J.C.Peng; S.Sawada           | U of Illinois at Urbana-Champaign; KEK       | Measurement of High-Mass Dimuon Production at the 50-GeV Proton Synchrotron  | Deferred   | Primary                                      |                                       | Imai, Dote, Zajc, Hatsuda, Hanagaki            |   |
| E05 | T.Nagae                      | Kyoto U                                      | Spectroscopic Study of $\Lambda$ Hypernucleus, $^{12}\text{Be}$ , via the $^{12}\text{C}(K^+K^-)$ Reaction   | Stage 2<br>New proposal based on the S-2S spectrometer is required                 | K1.8   | Pilot run in Nov. 2015                | Weise, Shimizu, Sakurai                        | Weise, Aoi, Pochodzalla                     |
| E06 | J.Imazato                    | KEK  | Measurement of T-violating Transverse Muon Polarization in $K^+ \rightarrow \pi^0 \mu^+ \nu$ Decays  | Stage 2  | K1.1BR                                       |                                       |  |   |
| E07 | K.Imai, K.Nakazawa, H.Tamura | JAEA, Gifu U, Tohoku U                       | Systematic Study of Double Strangeness System with an Emulsion-counter Hybrid Method   | Stage 2<br>Detailed quantitative evaluation of the necessary beam time is required | K1.8   | 5-day physics run in June 2016        | Weise, Shimizu, Hanagaki                       | Weise, Pochodzalla, Hanagaki                |
| E08 | A.Krutenkova                 | ITEP   | Pion double charge exchange on oxygen at J-PARC  | Stage 1  | K1.8   |                                       | Dote, Imai, Zajc                               | Weise, Aoi, Zajc                            |
| E10 | A.Sakaguchi, T.Fukuda        | Osaka U, Osaka EC U                          | Production of Neutron-Rich Lambda-Hypernuclei with the Double Charge-Exchange Reaction (Revised from Initial P10)  | Stage 2  | K1.8   | LI run finished, Be target run        | Weise, Hatsuda, Zajc                           | Weise, Tamura, Zajc                         |
| E11 | T.Kobayashi                  | KEK  | Tokai-to-Kamioka (TZK) Long Baseline Neutrino Oscillation Experimental Proposal  | Stage 2  | neutrino                                     | Data taking                           | Louis, Blucher, Inoue, Isidori                 | Harris, Kettell, Inoue, Isidori, Kitano     |
| E13 | H.Tamura                     | Tohoku U                                     | Gamma-ray spectroscopy of light hypernuclei  | Stage 2  | K1.8   | Finished                              | Weise, Shimizu, Hatsuda, Edelman               |   |
| E14 | T.Yamanaka                   | Osaka U                                      | Proposal for $K_s \rightarrow \pi^0 \nu \bar{\nu}$ Experiment at J-PARC  | Stage 2  | KL   | Data taking                           | Imai, Blucher, Browder, Isidori, Hanagaki      | Kuze, Kettell, Kitano, Isidori, Hanagaki    |
| E15 | M.Iwasaki, T.Nagae           | RIKEN, Kyoto U                               | A Search for deeply-bound kaonic nuclear states by in-flight $3\text{He}(K^-, n)$ reaction   | Stage 2  | K1.8BR                                       | Finished                              | Imai, Dote, Sakurai, Zajc                      | To be renewed                               |
| E16 | S.Yokkaichi                  | RIKEN  | Measurements of spectral change of vector mesons in nuclei (previously "Electron pair spectrometer at the J-PARC 50-GeV PS to explore the chiral symmetry in QCD")   | Stage 1<br>Updated TDR required for stage-2 approval                               | High p                                       |                                       | Weise, Shimizu, Hatsuda, Edelman               | Weise, Pochodzalla, Hatsuda, Edelman        |
| E17 | R.Hayano, H.Outa             | U Tokyo, RIKEN                               | Precision spectroscopy of Kaonic $^3\text{He}$ $3d \rightarrow 2p$ X-rays  | Registered as E62 with an updated proposal   | K1.8BR                                       |                                       | Imai, Dote, Sakurai, Hanagaki                  |   |
| E18 | H.Bhang, H.Outa, H.Park      | SNU, RIKEN, KRISS                            | Coincidence Measurement of the Weak Decay of $^{12}\text{C}$ and the three-body weak interaction process   | Stage 2  | K1.8   |                                       | Weise, Imai, Zajc                              | Weise, Tamura, Zajc                         |
| E19 | M.Naruki                     | KEK  | High-resolution Search for $e^+ \text{Pentaquark}$ in $\pi^+ p \rightarrow K^+ X$ Reactions  | Stage 2  | K1.8   | Finished                              | Sakurai, Dote, Zajc                            |   |
| E21 | Y.Kuno                       | Osaka U                                      | An Experimental Search for $\mu - e$ Conversion at a Sensitivity of $10^{-15}$ with a Slow-Extracted Bunched Beam  | Phase I Stage 2  | COMET  |                                       | Louis, Weise, Inoue, Browder, Isidori, Edelman | Harris, Kitano, Browder, Isidori, Edelman   |
| E22 | S.Ajimura, A.Sakaguchi       | Osaka U                                      | Exclusive Study on the Lambda-N Weak Interaction in A=4 Lambda-Hypernuclei (Revised from Initial P10)  | Stage 1  | K1.8   |                                       | Weise, Imai, Zajc                              | Weise, Tamura, Zajc                         |
| T25 | S.Mihara                     | KEK  | Extinction Measurement of J-PARC Proton Beam at K1.8BR   | Test Experiment (coordinated by JPNC)  | K1.8BR                                       | Data taking                           |  |   |
| E26 | K.Ozawa                      | KEK  | Search for $\omega$ -meson nuclear bound states in the $\pi^- + ^{12}\text{C} \rightarrow n + ^{11}\text{C}$ reaction, and for $\omega$ mass modification in the in-medium $\omega \rightarrow \pi^0 \gamma$ decay | Stage 1  | K1.8   |                                       | Dote, Sakurai, Hatsuda, Edelman                | Tamura, Hatsuda, Edelman                    |
| E27 | T.Nagae                      | Kyoto U                                      | Search for a nuclear Kbar bound state $K \text{ pp}$ in the $d(\pi^+ K^-)$ reaction  | Stage 2  | K1.8   | Finished (not possible)               | Weise, Shimizu, Sakurai, Hatsuda               | Weise, Aoi, Kuze, Hatsuda                   |
| E29 | H.Ohnishi                    | RIKEN  | Search for $\phi$ -meson nuclear bound states in the $p\text{bar} + ^{12}\text{C} \rightarrow \phi + ^{11}\text{C}$ reaction   | Stage 1  | K1.1   |                                       | Dote, Shimizu, Zajc, Hatsuda                   | Tamura, Zajc, Hatsuda                       |
| E31 | H.Noumi                      | Osaka U                                      | Spectroscopic study of hyperon resonances below KN threshold via the $(K^+n)$ reaction on Deuteron   | Stage 2<br>Justify the beam time request   | K1.8BR                                       | Data taking                           | Weise, Shimizu, Imai, Hatsuda                  | Weise, Tamura, Pochodzalla, Hatsuda         |
| T32 | A.Rubbia                     | ETH, Zurich                                  | Towards a Long Baseline Neutrino and Nucleon Decay Experiment with a next-generation 100 kton Liquid Argon TPC detector at Okinoshima and an intensity upgraded J-PARC Neutrino beam                               | Test Experiment  | K1.1BR                                       | Finished                              |  |   |
| P33 | H.M.Shimizu                  | Nagoya U                                     | Measurement of Neutron Electric Dipole Moment  | Deferred   | Linac  |                                       | To be discussed later                          | To be discussed later                       |
| E34 | N.Saito, M.Iwasaki           | KEK, RIKEN                                   | An Experimental Proposal on a New Measurement of the Muon Anomalous Magnetic Moment g-2 and Electric Dipole Moment at J-PARC   | Stage 1<br>Carry out a focused review of the TDR                                   | MLF  |                                       | Louis, Browder, Inoue, Isidori, Hanagaki       | Harris, Kettell, Isidori, Hanagaki, Kitano  |
| E36 | M.Kohl, S.Shimizu            | Hampton U, Osaka U                           | Measurement of $\Gamma(K^+ \rightarrow e^+ \nu) / \Gamma(K^+ \rightarrow \mu^+ \nu)$ and Search for heavy sterile neutrinos using the TREK detector system   | Stage 2  | K1.1BR                                       | Finished Data analysis                | Browder, Blucher, Louis, Isidori, Edelman      | Browder, Kettell, Isidori, Edelman          |
| E40 | K.Miwa                       | Tohoku U                                     | Measurement of the cross sections of $\Sigma p$ scatterings  | Stage 2  | K1.8   | In preparation                        | Dote, Shimizu, Hatsuda, Zajc                   | Kettell, Kuze, Hatsuda, Zajc                |
| P41 | M.Aoki                       | Osaka U                                      | An Experimental Search for $\mu - e$ Conversion in Nuclear Field at a Sensitivity of $10^{-14}$ with Pulsed Proton Beam from RCS   | Deferred   | MLF  | Reviewed in MLF/IMSS                  | Louis, Weise, Inoue, Browder, Isidori, Edelman |   |
| E42 | J.K.Ahn                      | Pusan National U                             | Search for H-Dibaryon with a Large Acceptance Hyperon Spectrometer   | Stage 1<br>TDR should be updated for Stage 2                                       | K1.8   |                                       | Dote, Sakurai, Hatsuda, Hanagaki               | Kuze, Hatsuda, Hanagaki                     |
| E45 | K.H.Hicks, H.Sako            | Ohio U, JAEA                                 | 3-Body Hadronic Reactions for New Aspects of Baryon Spectroscopy   | Stage 1  | K1.8   |                                       | Shimizu, Dote, Hatsuda                         | Tamura, Kuze, Hatsuda                       |
| T46 | K.Ozawa                      | KEK  | EDIT2013 beam test program   | Test Experiment  | K1.1BR                                       | Abandoned                             |  |   |
| T49 | T.Maruayama                  | KEK  | Test for 250L Liquid Argon TPC   | Test Experiment  | K1.1BR                                       | Withdrawn                             |  |   |
| E50 | H.Noumi                      | Osaka U                                      | Charmed Baryon Spectroscopy via the $(\pi, D^*)$ reaction  | Stage 1<br>IPNS should investigate the safety aspect of the beam-line              | High p                                       |                                       | Isidori, Browder, Shimizu, Hatsuda, Edelman    | Isidori, Browder, Kettell, Hatsuda, Edelman |
| T51 | S.Mihara                     | KEK  | Research Proposal for COMET (E21) Calorimeter Prototype Beam Test  | Test Experiment  | K1.1BR                                       | had to be stopped                     |  |   |
| T52 | Y.Sugimoto                   | KEK  | Test of fine pixel CCDs for ILC vertex detector  | Test Experiment  | K1.1BR                                       | not performed yet                     |  |   |
| T53 | D.Kawama                     | RIKEN  | Test of GEM Tracker, Hadron Blind Detector and Lead-glass EMC for the J-PARC E16 experiment  | Test Experiment  | K1.1BR                                       | not performed yet                     |  |   |
| T54 | K.Miwa                       | Tohoku U                                     | Test experiment for a performance evaluation of a scattered proton detector system for the $\Sigma p$ scattering experiment E40  | Test Experiment  | K1.1BR                                       | not performed yet                     |  |   |
| T55 | A.Toyoda                     | KEK  | Second Test of Aerogel Cherenkov counter for the J-PARC E36 experiment   | Test Experiment  | K1.1BR                                       | had to be stopped                     |  |   |
| E56 | T.Maruayama                  | KEK  | A Search for Sterile Neutrino at J-PARC Materials and Life Science Experimental Facility   | Stage 1<br>Continue evaluation of experimental sensitivity                         | MLF  |                                       | Inoue, Isidori, Blucher, Edelman               | Kuze, Isidori, Kettell, Edelman, Kitano     |
| E57 | J.Zmeskal                    | Stefan Meyer Institute for Subatomic Physics | Measurement of the strong interaction induced shift and width of the $1s$ state of kaonic deuterium at J-PARC  | Stage 1<br>Beam time request endorsed. Safety review in Dec. 2016                  | K1.8BR                                       | Commissioning run in 2016             | Imai, Dote, Sakurai, Hatsuda, Zajc             | Pochodzalla, Aoi, Hatsuda, Zajc             |
| P58 | M.Yokoyama                   | U. Tokyo                                     | A Long Baseline Neutrino Oscillation Experiment Using J-PARC Neutrino Beam and Hyper-Kamiokande  | Deferred   | neutrino                                     |                                       | Louis, Blucher, Isidori, Hanagaki              | Harris, Inoue, Isidori, Hanagaki            |
| T59 | A.Minamino                   | Kyoto U                                      | A test experiment to measure neutrino cross sections using a 3D grid-like neutrino detector with a water target at the near detector hall of J-PARC neutrino beam-line   | To be arranged by IPNS and KEK-TZK   | neutrino monitor bid<br>neutrino monitor bid | Finished                              | Discussion in the sub-committee                |   |
| T60 | T.Fukuda                     | Toho U                                       | Proposal of an emulsion-based test experiment at J-PARC  | Arranged by IPNS and KEK-TZK   |  | Finished                              | Discussion in the sub-committee                |   |
| E61 | M.Wilking                    | Stony Brook U                                | nuPRISM  | Stage 1  | neutrino                                     |                                       | Louis, Blucher, Inoue, Isidori                 | Harris, Kettell, Inoue, Isidori, Kitano     |
| E62 | R.Hayano, S.Okada, H.Outa    | U. Tokyo, RIKEN                              | Precision Spectroscopy of kaonic atom X-rays with TES  | Stage 2<br>Recommends the requested beam time                                      | K1.8BR                                       | Commissioning run in 2016             | Imai, Dote, Sakurai, Hanagaki                  | Hatsuda, Aoi, Hanagaki, Kuze                |
| E63 | H.Tamura                     | Tohoku U                                     | Gamma-ray spectroscopy of light hypernuclei II   | Stage 2  | K1.1   | BL not ready yet. Exp. in preparation | Weise, Shimizu, Hatsuda, Edelman               | Weise, Pochodzalla, Hatsuda, Aoi            |
| E64 | T.Nakaya                     | Kyoto U                                      | Proposal for TZK Extended Run  | Stage 1<br>Detailed technical review should be held                                | neutrino                                     |                                       |  | Harris, Kettell, Inoue, Isidori, Kitano     |

Stage 1/2 granted      PAC22 presentation      PAC22 judgement

Approved test exp.      finished or not considered to be done in near future