HIGHLIGHTS OF THE 2026 EDITION OF THE REVIEW OF PARTICLE PHYSICS

All PDG data and review articles are available online at **pdg.lbl.gov**.

903 new papers with 3,200 new measurements

- 339 new measurements from *LHC* experiments (ATLAS, CMS and LHCb).
- Extensive *Higgs boson* coverage: 92 new papers and 250 measurements, including the latest results on mass, couplings, decay width, constraints on the Higgs self-coupling, and searches for other new scalar bosons.
- *Supersymmetry*: 40 new papers with 143 measurements with major exclusions.
- *Top quark*: 32 new papers with 71 measurements provide latest results on mass, coupling, and the discovery of quantum entanglement between pairs of top quarks at LHC.
- *W mass and Electroweak measurements*: The LHC-Tevatron M_W Working Group reports a new combination that provides a more precise world average. New measurements for the leptonic effective electroweak mixing angle are also reported.
- *c-, b-hadron physics*: 170 papers and 717 measurements provide world-leading data on lifetimes, mixing, CP violation, CKM angles, semileptonic and hadronic branching fractions, including rare processes, and constraints on new physics.
- *Neutrino Physics*: 58 new papers with 126 measurements on neutrino mass, mixing, and CP-violation.
- *Meson resonances*: 171 papers with 618 measurements provide substantial improvements, including new cross particle fits involving $J/\psi(1S)$, $\psi(2S)$ and $\eta_c(1S)$; emerging evidence for existence of additional scalar mesons in the 1700 - 1800 MeV region led to revamping of the $f_0(1710)$, $f_0(1810)$ entries; complex pole positions quoted when available in addition to Breit-Wigner masses and widths; many decay branching fractions re-adjusted with current PDG values; and recently observed states now considered established added to Summary Tables.
- Data from both Summary Tables and Particle Listings are now available in machine-readable format via the PDG API.

118 reviews (most are revised)

- New review on Muon Anomalous Magnetic moment (g-2), covering the latest experimental and theoretical results.
- Major revision of *Higgs Physics* review with a renewed focus on the SM Higgs theory and phenomenology.
- Major revision of *EWK* review includes a pedagogical introduction to the renormalization procedure, updated *EWK* fits based on the HEPFit and GFitter frameworks, and the addition of an SMEFT fit to electroweak precision observables.
- Major revision of *Top Quark* review summarizes latest LHC results and constraints on new physics from top quark.
- Major revision of *Machine Learning* review, with new discussions of self-supervised learning, foundation models, and other recent developments.
- Major revision of various sections in the Particle Detectors for:
  - Accelerator physics in particular on *Gaseous detectors*, *Low-noise detector readout*, and *Semiconductor detectors*.
  - Non-accelerator physics in particular on *Atmospheric fluorescence detectors*, *Atmospheric Cherenkov telescopes*, and *Deep liquid detectors*.
- Major revision of the *Statistics* review, which has been updated and restructured for clarity.
- *Semileptonic B Hadron Decays, Determination of V_{cb} and V_{ub}* summarizes the latest results and discusses long-standing issues with inclusive and exclusive measurements.
- The *Quark Model* review has been updated to include new charmed baryons observed by LHCb and CMS.
- The *Monte Carlo Particle Numbering Scheme* has been extended to better incorporate tentative states, tetraquarks, and pentaquarks.