Eduardo Rodrigues

SELECTED RECENT PUBLICATIONS

LHCb experiment
- *First observation of the rare purely baryonic decay $B^0 \rightarrow p\,\bar{p}$*, Phys. Rev. Lett. 119, 232001 (2017)
- *First observation of a baryonic B_s^0 decay*, Phys. Rev. Lett. 119, 041802 (2017)
- *Observation of charmless baryonic decays $B_{(s)}^0 \rightarrow p\,\bar{p}\,h^+h'^-$*, Phys. Rev. D 96, 051103(R) (2017)
- *Evidence for the two-body charmless baryonic decay $B^+ \rightarrow p\,\bar{\Lambda}$*, JHEP 04 (2017) 162
- *Search for the lepton-flavour violating decay $D^0 \rightarrow e\,\mu$*, Phys. Lett. B 754 (2016), pp. 167-175
- *Search for the lepton flavour violating decay $\tau^- \rightarrow \mu^-\,\mu^+\,\mu^-$*, JHEP 02 (2015) 121
- *Measurement of CP asymmetry in $B_s^0 \rightarrow D_s^{\mp}\,K^{\pm}$ decays*, JHEP 11 (2014) 060

Phenomenology
- *Direct CP violation in internal W-emission dominated baryonic B decays*, Y.K. Hsiao, S.-Y. Tsai, E. Rodrigues, Eur. Phys. J. C 80 (2020) 565; arXiv:1909.08780 [hep-ph]
- *Testing the W-exchange mechanism with two-body baryonic B decays*, Y.K. Hsiao, S.-Y. Tsai, C.-C. Lih, E. Rodrigues, JHEP 04 (2020) 035; arXiv:1906.01805 [hep-ph]
- *Purely baryonic decay processes*, C.Q. Geng, Y.K. Hsiao, E. Rodrigues, Nature Scientific Reports 9, 1358 (2019); arXiv:1806.00861 [hep-ph]
- *Three-body charmless baryonic $\bar{B}_s^0$ decays*, C.Q. Geng, Y.K. Hsiao, E. Rodrigues, Phys. Lett. B 767 (2017), pp. 205-208; arXiv:1612.08133 [hep-ph]
- *Exploring the simplest purely baryonic decay processes*, C.Q. Geng, Y.K. Hsiao, E. Rodrigues, Phys. Rev. D 94, 014027 (2016), arXiv:1603.05602 [hep-ph]

Computing & Software
- *LHCC HL-LHC Computing Review Stage-2: Common Software Projects - Data Science Tools*, under preparation
- *HL-LHC Computing Review: Common Tools and Community Software*, HSF-DOC-2020-01, doi:10.5281/zenodo.4009114, arXiv:2008.13636 [physics.comp-ph]
- *The Scikit HEP Project - overview and prospects*, Proceedings of *CHEP 2019 – 24th International Conference on Computing in High Energy and Nuclear Physics*, Adelaide (Australia), 4-8 November 2019; EPJ Web of Conferences 245, 06028 (2020); arXiv:2007.03577 [physics.comp-ph]
- Community White Paper (CWP) *A Roadmap for HEP Software and Computing R&D for the 2020s*, Comput Softw Big Sci (2019) 3, 7; HSF-CWP-2017-01; arXiv:1712.06982 [physics.comp-ph]
- *CWP from Software Trigger and Event Reconstruction WG*, HSF-CWP-2017-16, arXiv:1802.08638 [physics.comp-ph]
- *CWP from Data Analysis and Interpretation WG*, HSF-CWP-2017-05, arXiv:1804.03983 [physics.comp-ph]
- *CWP from Machine Learning WG*, HSF-CWP-2017-10, arXiv:1807.02876 [physics.comp-ph]

Detector-related
- *Radiation Damage Effects and Operation of the LHCb Vertex Locator*, K. Akiba et al., IEEE Transactions on Nuclear Science 65, 1127-1132 (2018)
- *Performance of the LHCb Vertex Locator*, R. Aaij et al., 2014 JINST 9 P09007

Software packages
- *scikit-hep*, E. Rodrigues et al., https://doi.org/10.5281/zenodo.1043949
- *Particle*, E. Rodrigues and Henry Schreiner, https://doi.org/10.5281/zenodo.2552429
- *DecayLanguage*, E. Rodrigues and Henry Schreiner, https://doi.org/10.5281/zenodo.3257423
- Several other packages of the Scikit-HEP project

FULL LIST of PUBLICATIONS

Over 700 publications including peer-reviewed articles, conference proceedings and reports.
- In the LHCb experiment authors list since mid 2002: close to 600 physics publications, of order 30 physics-related and technical reports, 10 conference notes.
  Full list of LHCb physics publications from iNSPIRE. Of the published papers, 7 have 500+ citations.
- 5 publications on Flavour Physics phenomenology and 3 review articles.
- Several publications on computing & software in Particle Physics.
- In the ZEUS authors list for the period 10/1999 - 08/2003: 49 publications.