

# Dr Alexander Shires

## Publications

### LHCb peer-reviewed papers

Publications with a significant contribution

LHCb collaboration, R. A. et al, *Measurement of  $B^+ \rightarrow \pi^+ \mu^+ \mu^-$  at LHCb*, (in review).

LHCb collaboration, R. Aaij *et al.*, *Test of lepton universality using  $B^+ \rightarrow K^+ \ell^+ \ell^-$  decays*, *Phys. Rev. Lett.* **113** (2014) 151601, [arXiv:1406.6482](#)

LHCb collaboration, R. Aaij *et al.*, *Measurement of form-factor-independent observables in the decay  $B^0 \rightarrow K^{*0} \mu^+ \mu^-$* , *Phys. Rev. Lett.* **111** (2013) 191801, [arXiv:1308.1707](#)

LHCb collaboration, R. Aaij *et al.*, *Differential branching fraction and angular analysis of the decay  $B^0 \rightarrow K^{*0} \mu^+ \mu^-$* , *JHEP* **08** (2013) 131, [arXiv:1304.6325](#)

LHCb collaboration, R. Aaij *et al.*, *Differential branching fraction and angular analysis of the decay  $B^0 \rightarrow K^{*0} \mu^+ \mu^-$* , *Phys. Rev. Lett.* **108** (2012) 181806, [arXiv:1112.3515](#)

Additional author on more than 200 papers as a member of the LHCb collaboration.

### Peer-reviewed papers outside LHCb

D. Das, G. Hiller, M. Jung, and A. Shires, *The  $\bar{B} \rightarrow \bar{K} \pi \ell \ell$  and  $\bar{B}_s \rightarrow \bar{K} K \ell \ell$  distributions at low hadronic recoil*, *JHEP* **09** (2014) 109, [arXiv:1406.6681](#)

T. Blake, U. Egede, and A. Shires, *The effect of S-wave interference on the  $B^0 \rightarrow K^{*0} \ell^+ \ell^-$  angular observables*, *JHEP* **03** (2013) 027, [arXiv:1210.5279](#)

### LHCb conference submissions

LHCb collaboration, *Differential branching fraction and angular analysis of the  $B^0 \rightarrow K^{*0} \mu^+ \mu^-$  decay*, [LHCb-CONF-2012-008](#)

LHCb collaboration, *Angular analysis of  $B^0 \rightarrow K^{*0} \mu^+ \mu^-$* , [LHCb-CONF-2011-038](#)

### LHCb documents

A. Shires, *Optimising the electron triggers for 2015*, [LHCb-INT-2014-038](#). CERN-LHCb-INT-2014-038

## Invited Talks

### International conferences

**Frontiers in Particle Physics**, Aspen, Jan, 2014, *Rare heavy flavour decays at the LHC*,

**Spin-PRAHA**, Prague, Jul, 2012, *Testing the helicity structure of new physics with rare decays at LHCb*,

## Seminars

**GDR-Terascale annual meeting**, Heidelberg, Dec, 2014, *Testing lepton universality in  $b$  decays*,

**Theoretical Physics Seminars**, TU Dortmund, Oct, 2014, *Searching for new physics in  $b \rightarrow (s, d)\ell^+\ell^-$  transitions*,

**Collider cross talk**, CERN, Sept, 2014, *Test of lepton universality using  $b \rightarrow s\ell^+\ell^-$  decays at LHCb*,

**High Energy Physics Seminar**, University of Bonn, Oct, 2013, *Electroweak penguins at LHCb*,

**High Energy Physics Seminars**, TU Dortmund, Apr, 2013, *Exploring  $B^0 \rightarrow K^{*0}\mu^+\mu^-$  at LHCb*,

**IOP HEPP Annual Meeting**, Queen Mary, University of London, Apr, 2012, *Angular analysis of  $B^0 \rightarrow K^{*0}\mu^+\mu^-$  at LHCb*,