L0 Optimization for the TDR: status

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- L0 optimization performed individually on several signal channels …
  - using all interactions
  - no SPD cut yet …
  - di-muon trigger = muons Pt1 + Pt2

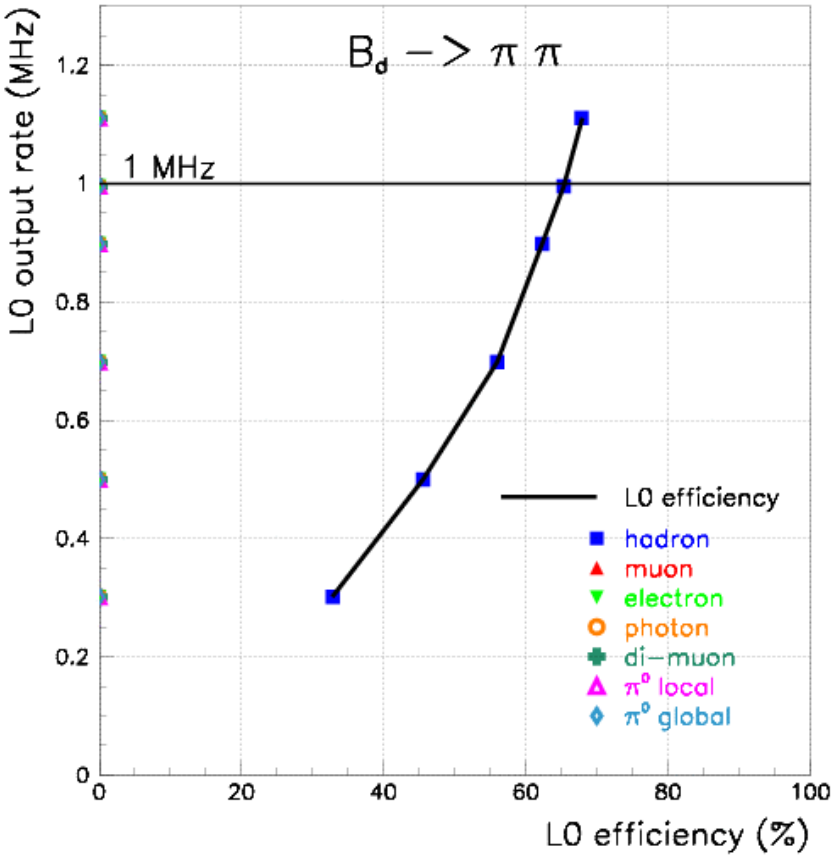
    (but Pt2=0 is possible, as in current implementation

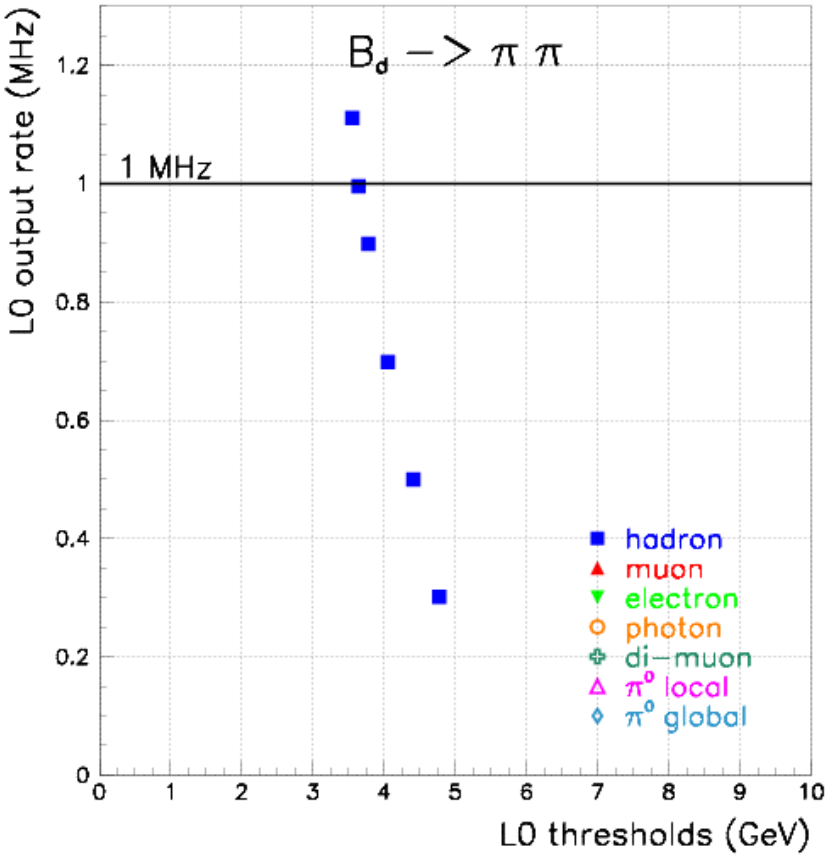
    -> could we decide on whether or not to use a true di-muon trigger?)
- Max. L0 efficiency optimized as a function of the L0 output rate
- Parameter space is reasonably flat (fortunately)

  -> several sets of thresholds give same efficiency (given the present stats)

Bd -> π π

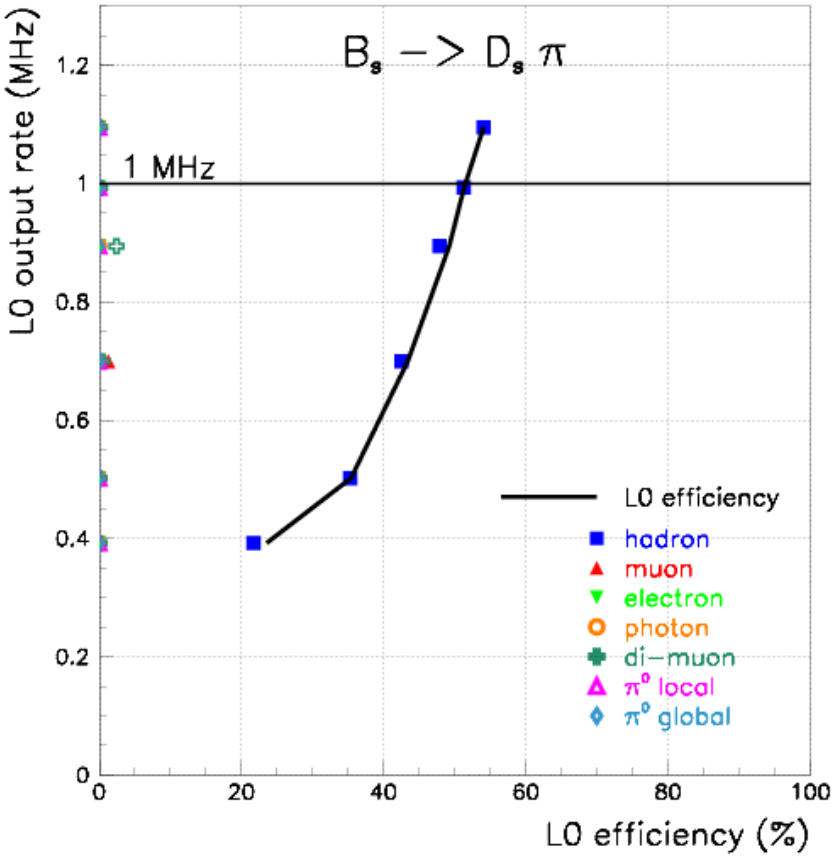
- hadron trigger gets all share of the cake …

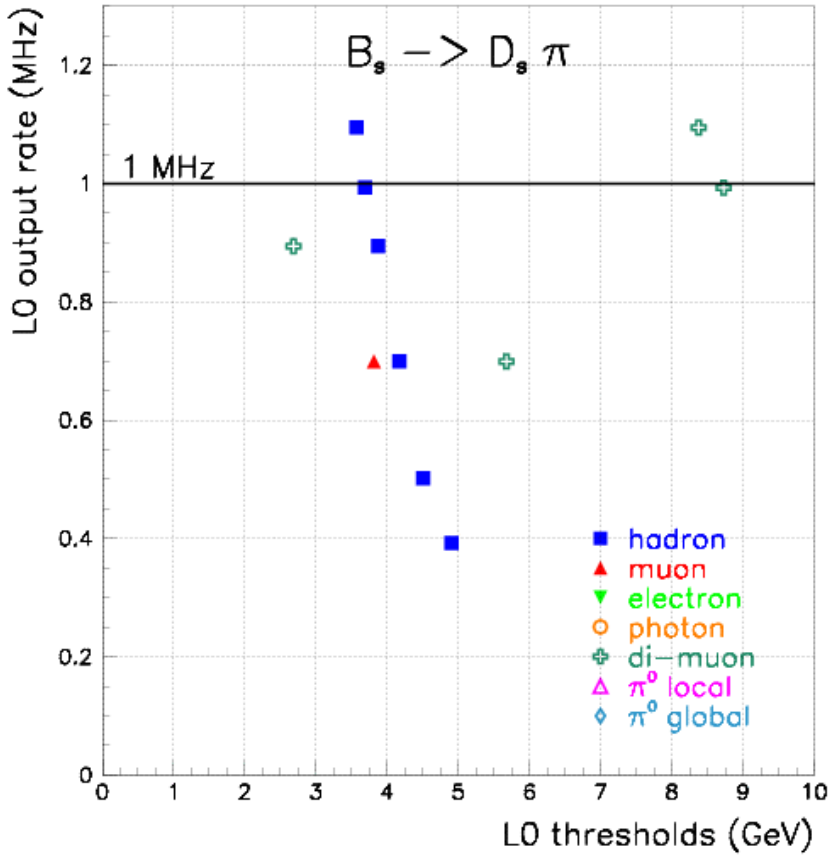




Bs -> Ds π

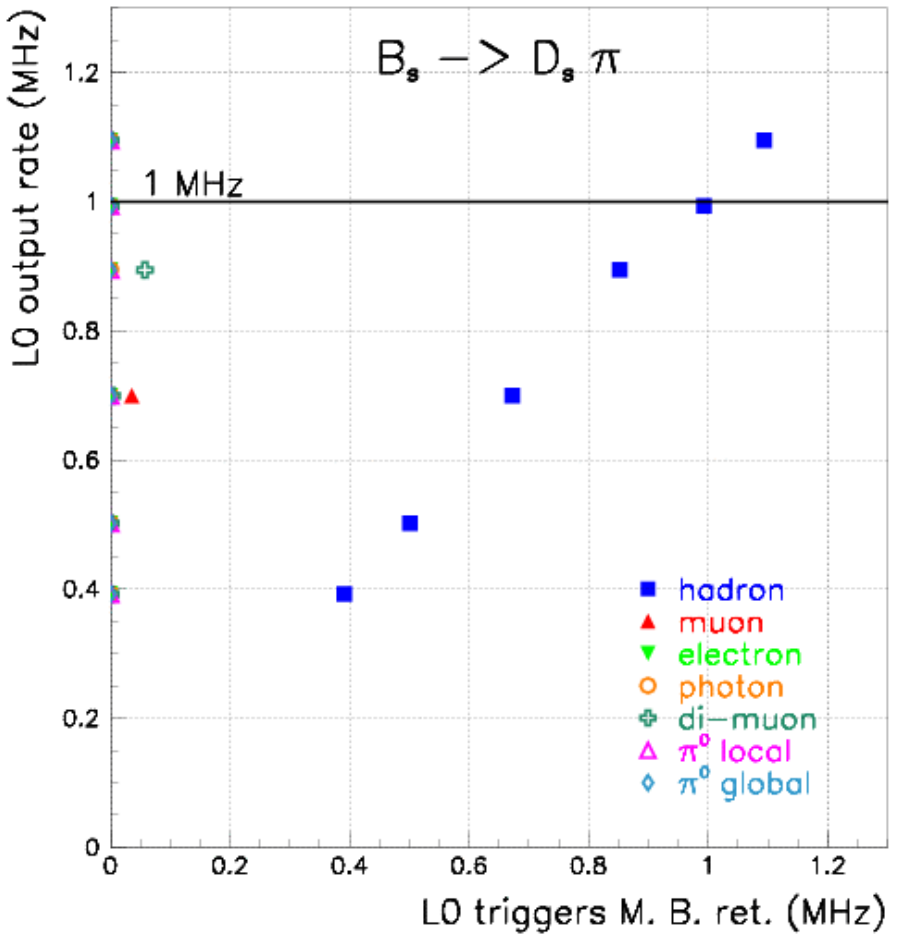
- muon triggers play a little role … specially relevant at high rate (e.g. 1MHz)





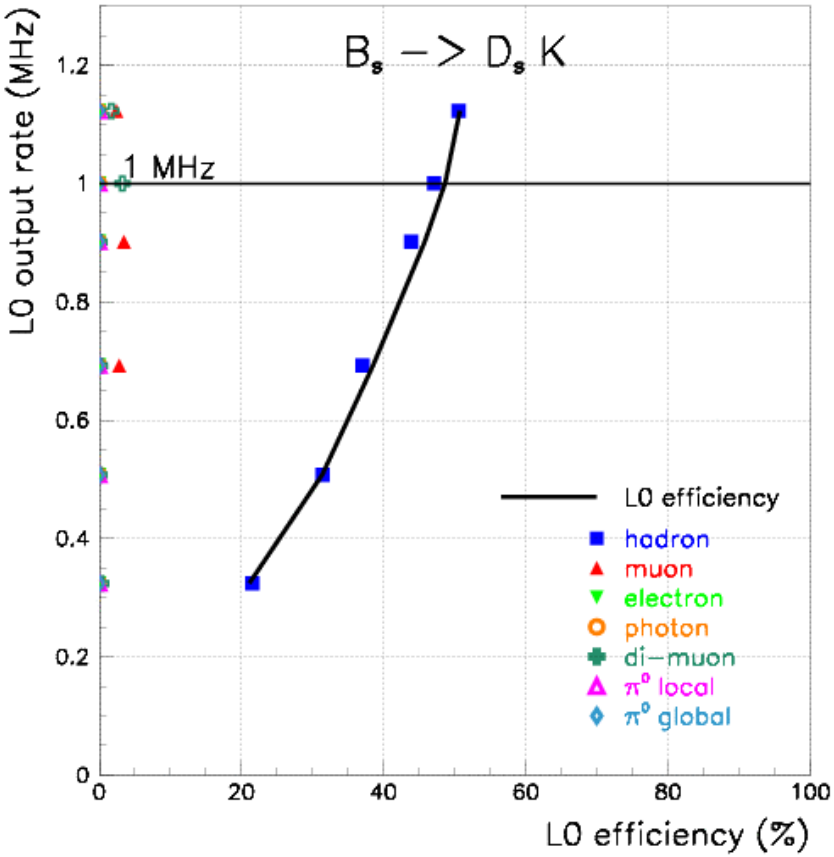
Bs -> Ds π (II)

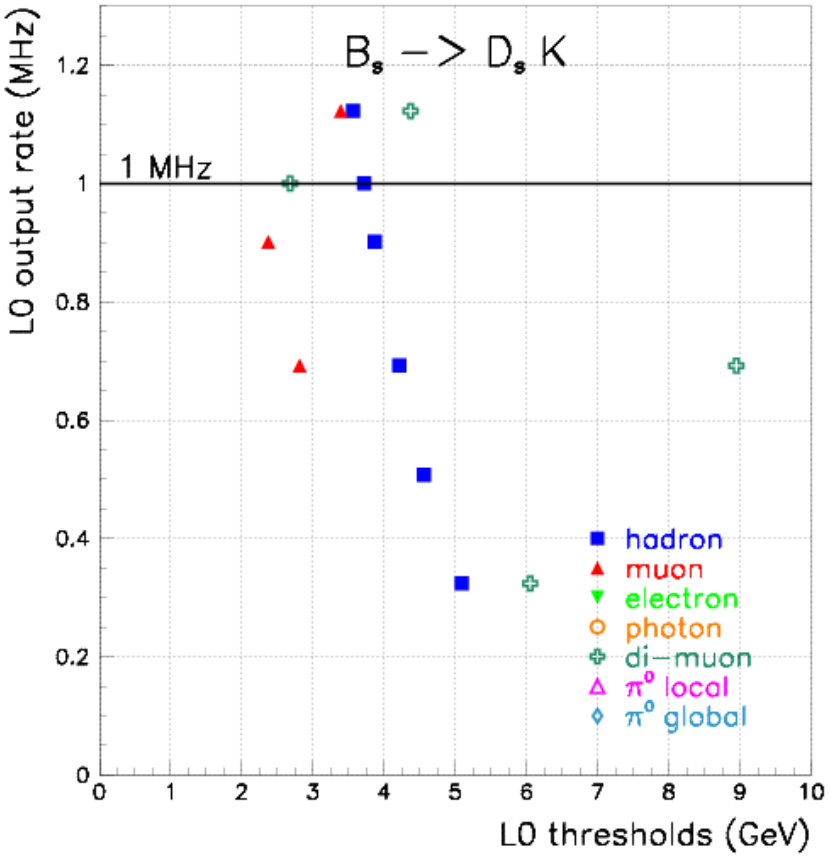
- Minimum bias retention shown exclusively for each (sub-)trigger



Bs -> Ds K

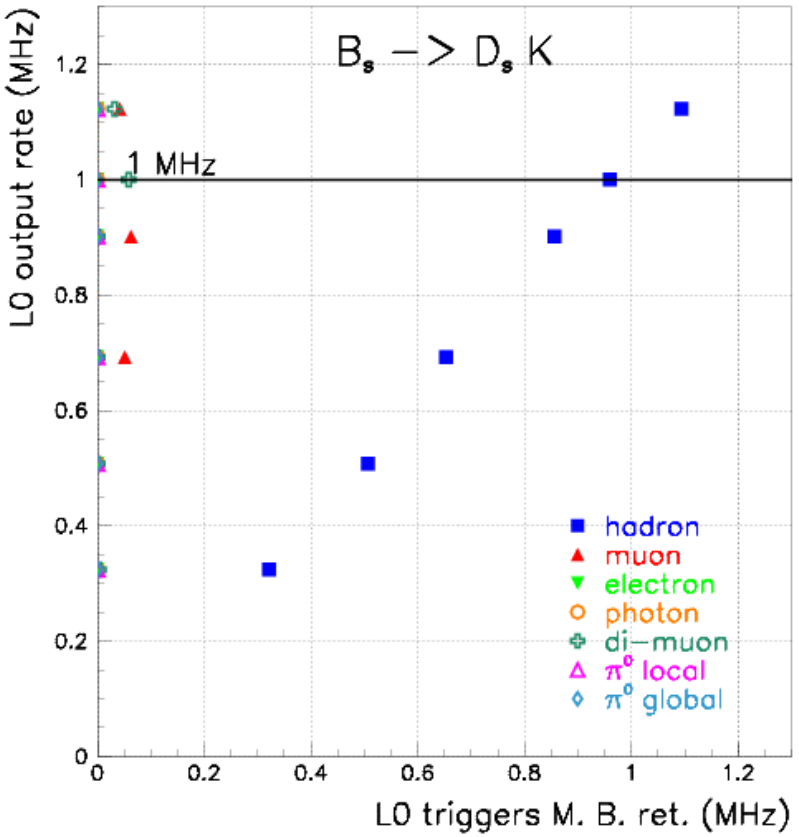
- similar bandwidth division as for Bs -> Ds π





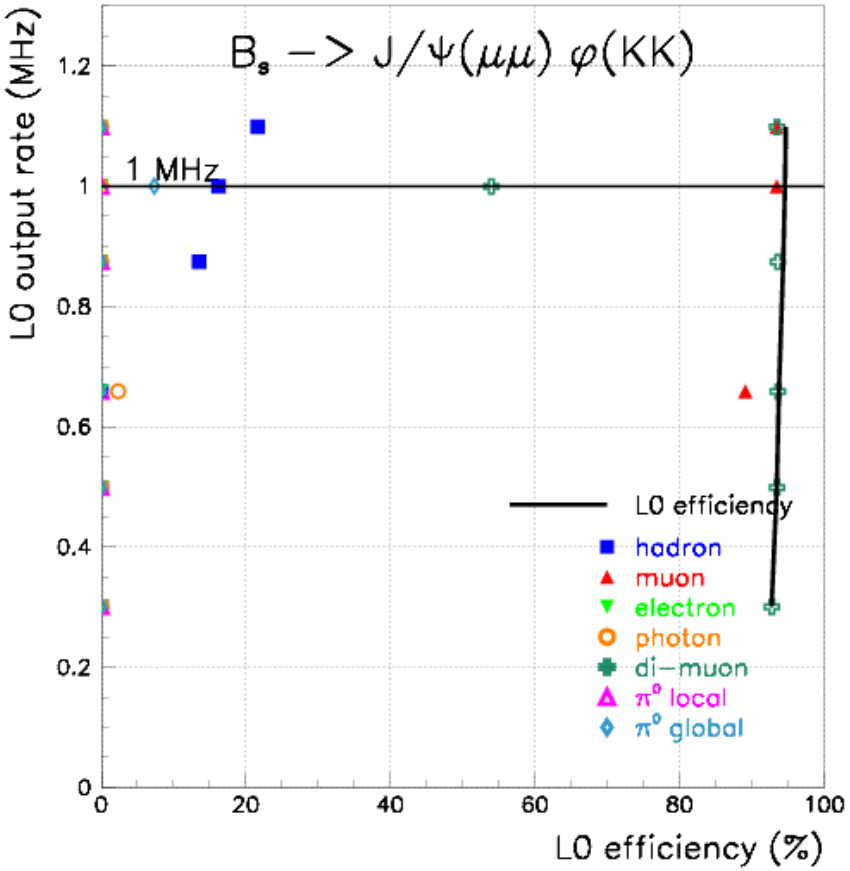
Bs -> Ds K (II)

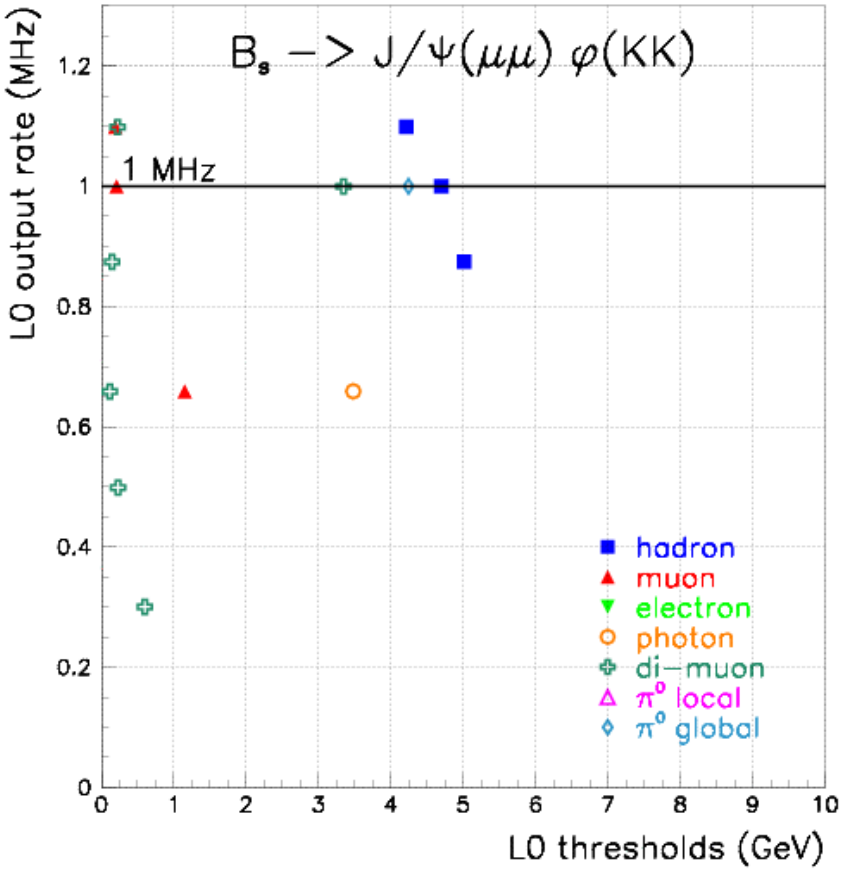
- similar bandwidth division as for Bs -> Ds π



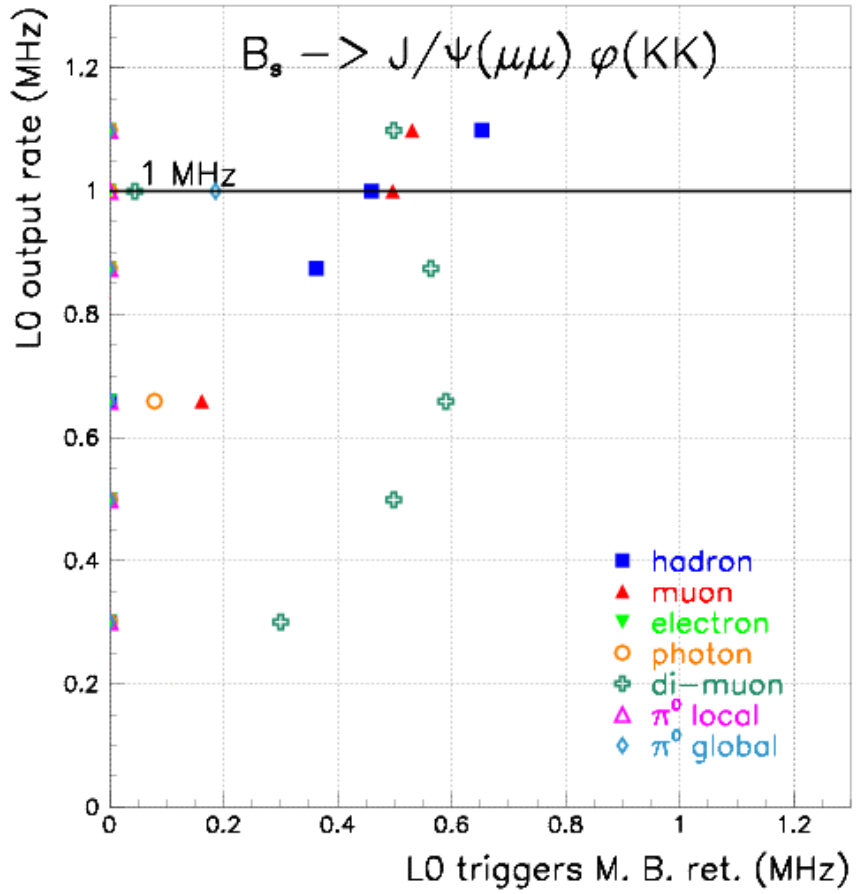
Bs -> J/Ψ (μμ) φ(KK)

- muon triggers crucial …
- muon/di-muon share is "a bit arbitrary" because of nature of di-muon trigger …





Bs -> J/Ψ (μμ) φ(KK) (II)



- other channels were also optimized …
- L0 overall optimization ongoing …