B triggers

Andrei Nomerotski, Fermilab, 7/3/2003

- Looked what triggered D*, D0, D+ & J/psi events in new runs with v12 trigger list

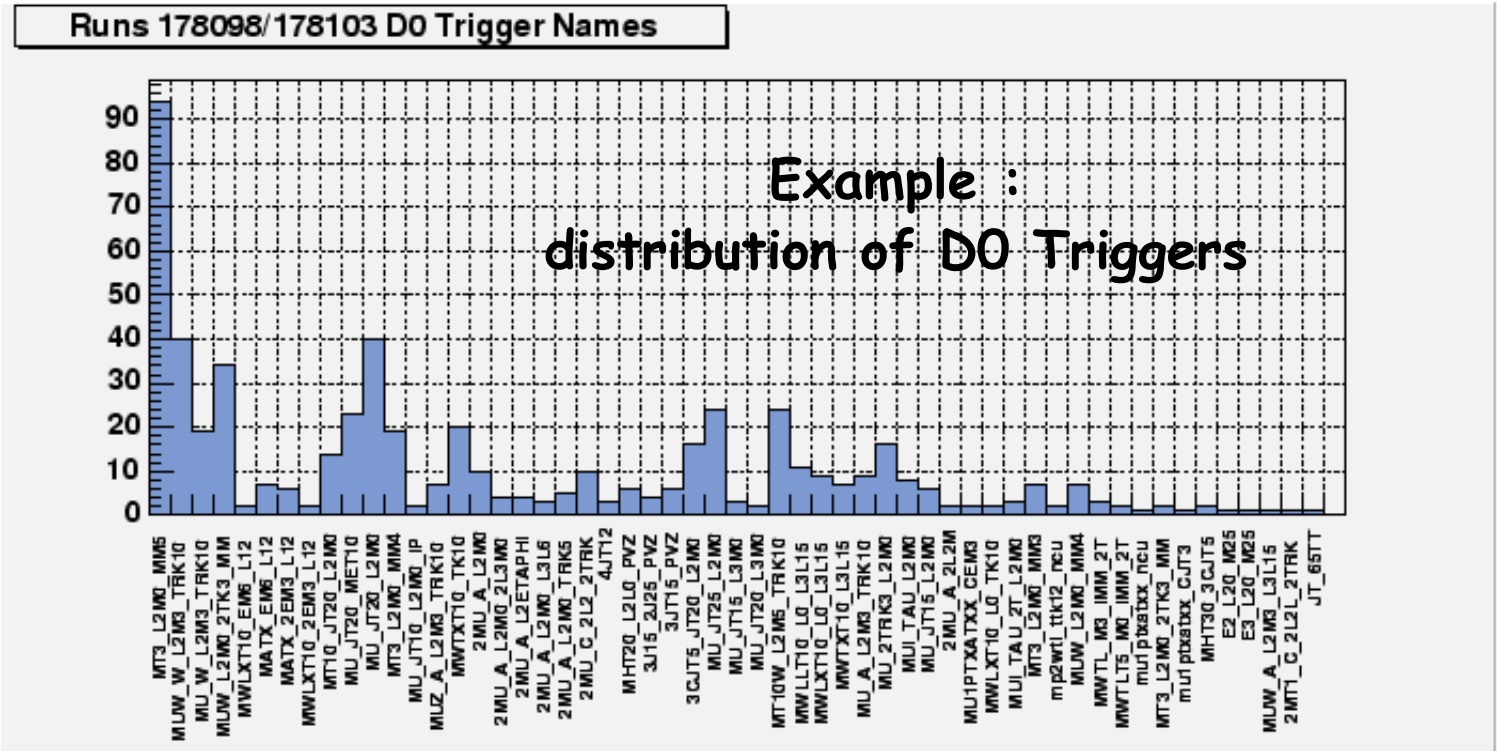
- Used
  - Gennadi's samples as AADST
  - Sergey's analysis

Runs with v12 trigger list

- runs 178098/17103
  - taken 6/14/2003
  - trig.version 12.00
  - prescales 28(25) 10^{30}
- # of events in the corresponding mass windows
  - 33 D*
  - 107 D+
  - 189 D0
  - 1513 J/psi

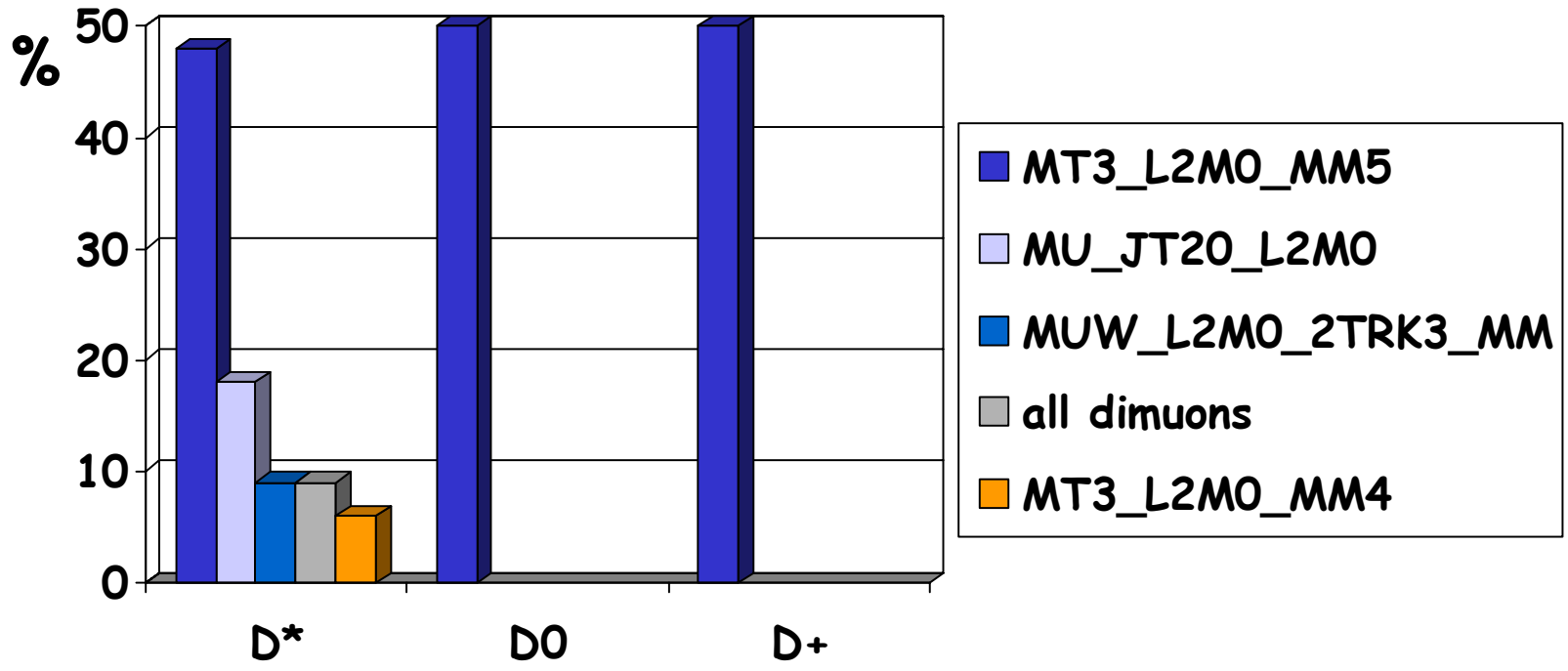
Results

- Procedure for each run
  - Find trigger with largest contribution
  - Remove events with this trigger to account for overlaps in triggers
  - Find the next largest trigger etc



D mesons for v12

- Triggers - D*, D0 & D+ largest contributors



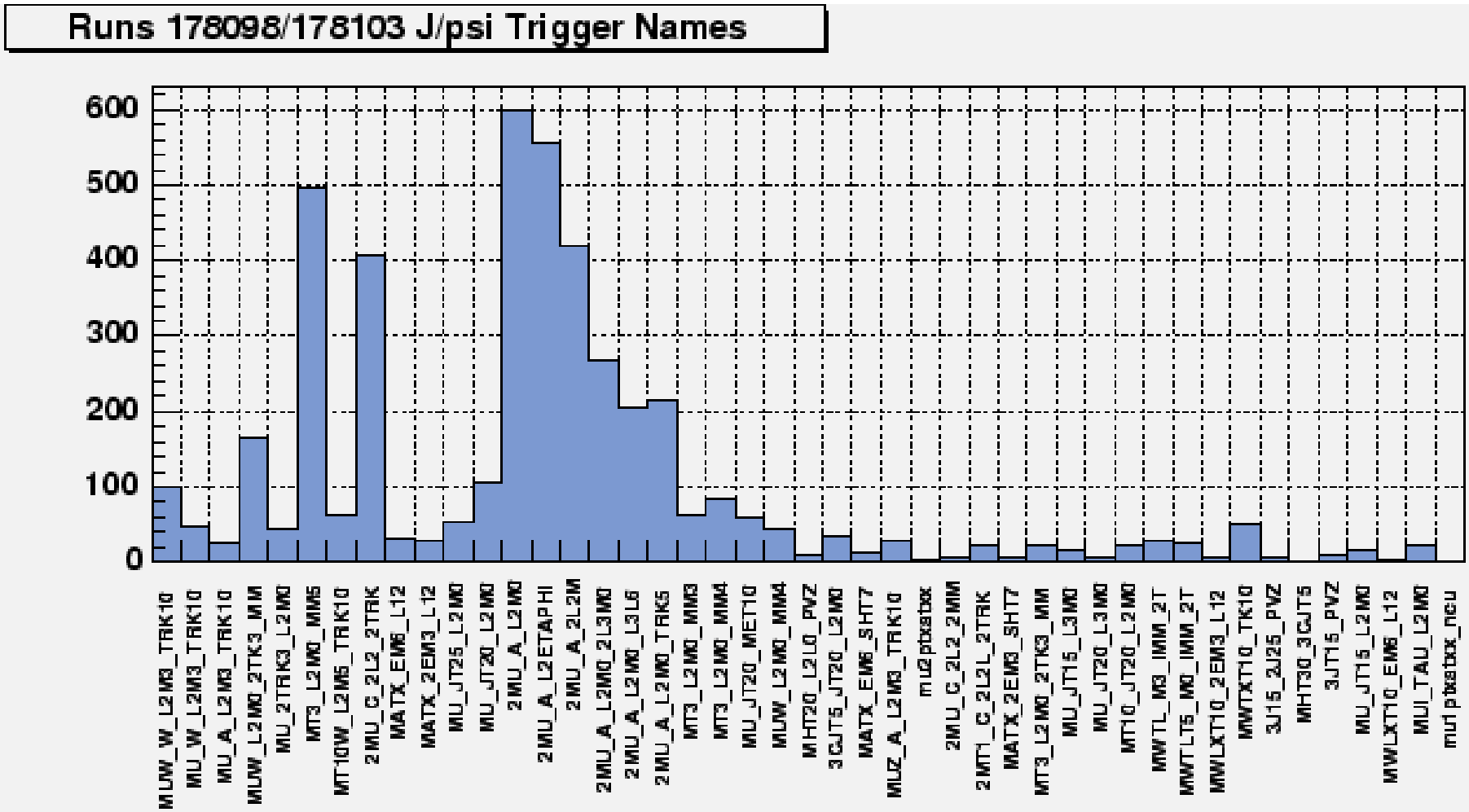
- All the triggers but two were not prescaled
  - MT3_L2M0_MM4 : prescale 10
  - MUW_L2M0_2TRK3_MM : prescale 4
- For D0 and D+ only the largest bin is shown

D mesons for v12

- Rick's list of new single muon triggers
  - MT3_L2M0_MM5(4)(3)
    - should be unprescaled till 40(30)(15) 10^30
    - Prescales in the v12 runs 1(10)(30)
  - MT3_L2M0_2TRK3_MM
    - Prescale 20, no D* events
  - MU_JT20(15)_L3M0
    - Prescale 14, no D* events
    - MU_JT20_L2M0 was unprescaled and gave 18% of D*

J/psi for v12

- Distribution of triggers for J/psi



J/psi for v12

- Rick's list for dimuon triggers
  - Total 1513 J/psi
  - 2MU_A_L2M0
    - Prescale 1, 600 events
  - 2MU_A_L2ETAPHI
    - Prescale 1, 550 events
  - 2MU_A_L2M0_2L3M0
    - Prescale 1, 270 events
  - 2MU_A_2L2M
    - Prescale 1, 415 events

J/psi for v12

- New low Pt dimuon triggers
  - 2MU_C_2L2_2MM
    - Prescale 1, 6 events
  - 2MU_C_2L2_2TRK
    - Prescale 1, 400 events
  - 2MT1_C_2L2L_2MM
    - Prescale 50, 1 event
  - 2MT1_C_2L2L_2TRK
    - Prescale 50, 24 events
- Single muon triggers
  - MT3_L2M0_MM5(4)(3)
    - Prescale 1(10)(30), 500(90)(60) events

Conslusions

- V12 is better than V11
- New Muon + CTT single muon trigger accounts for half of reconstructed D mesons
  - Muon + CAL trigger is second best
- Work in progress for dimuons
- Prescales