Tau and Charm Candidates

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27 May 2005

New Candidates

- New tau candidates
  - 3140_22143

    Kink candidate
  - 3139_22722

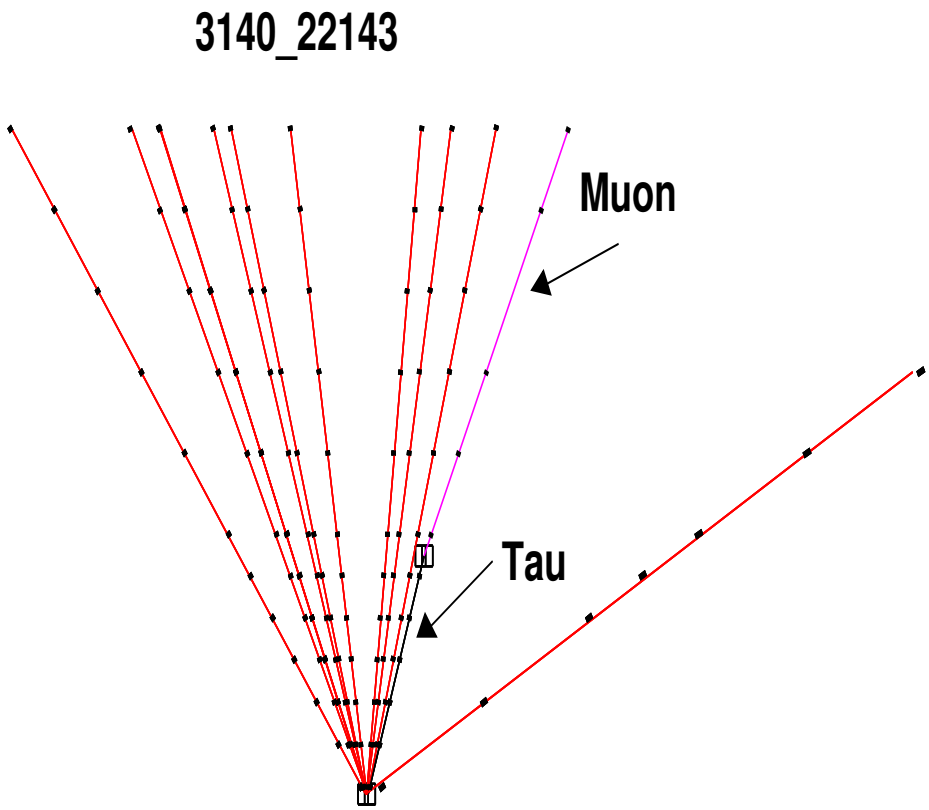
    Short decay kink candidate
- New charm candidates
  - 2846_09042

    Muon from primary, daughter is electron
  - 3227_03420

    Electron from primary
  - 2930_00103

    Electron from primary, 5 prong? 4 prong? secondary vertex

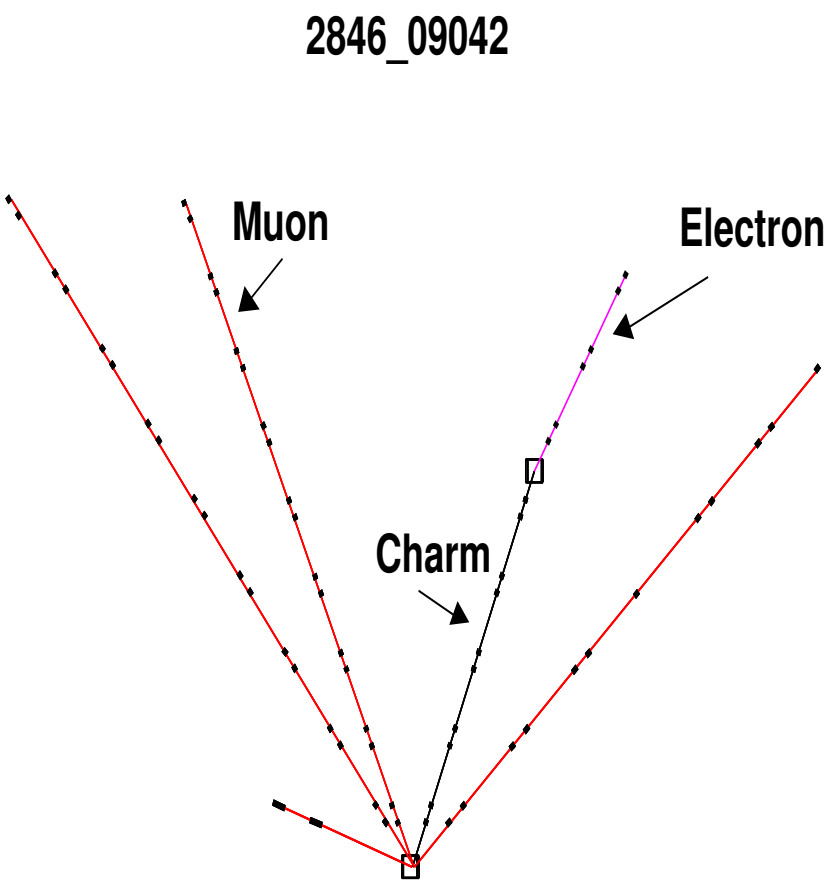
Tau Candidate



Event	θ	$\Delta\phi$	L	α	P
3140_22143	0.04	1.67	4.8	0.012	13.4

P(τ)	P(charm)	P(hadron)	Material	Daughter
0.97	0.03	0.01		muon

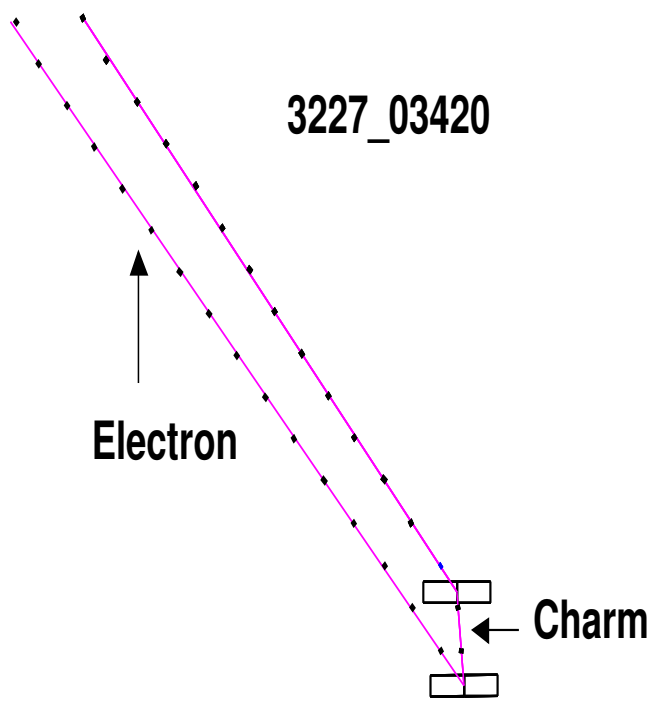
Charm Candidate



Event	θ	$\Delta\phi$	L	α	P
2846_09042	0.034	2.81	7.0	0.0165	26^{+21}_{-9}

P(τ)	P(charm)	P(hadron)	Material	Daughter
0.00	0.89	0.11	steel	e^-

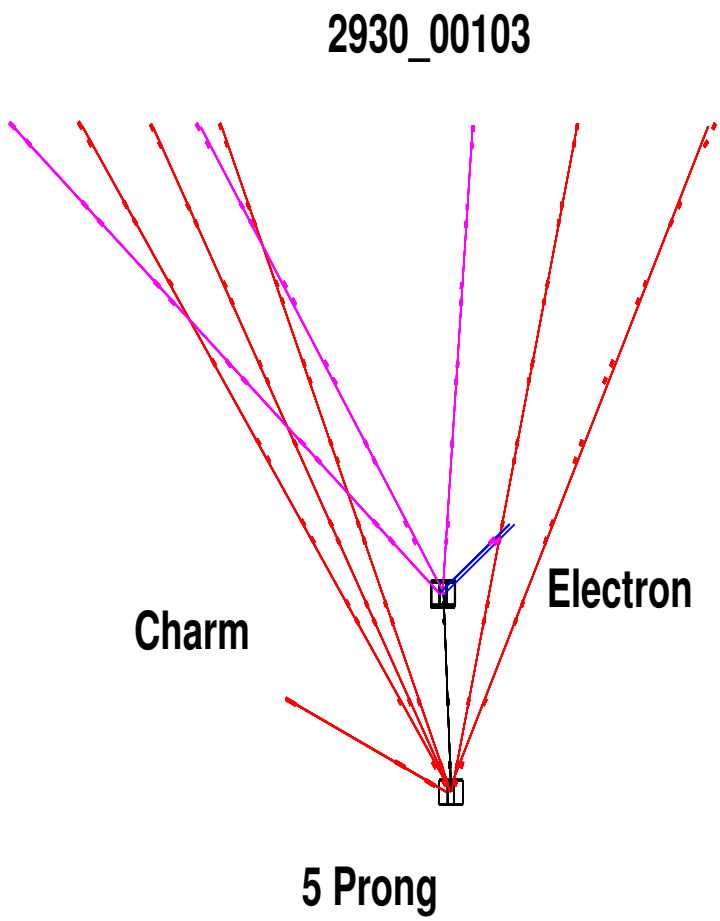
Charm Candidate

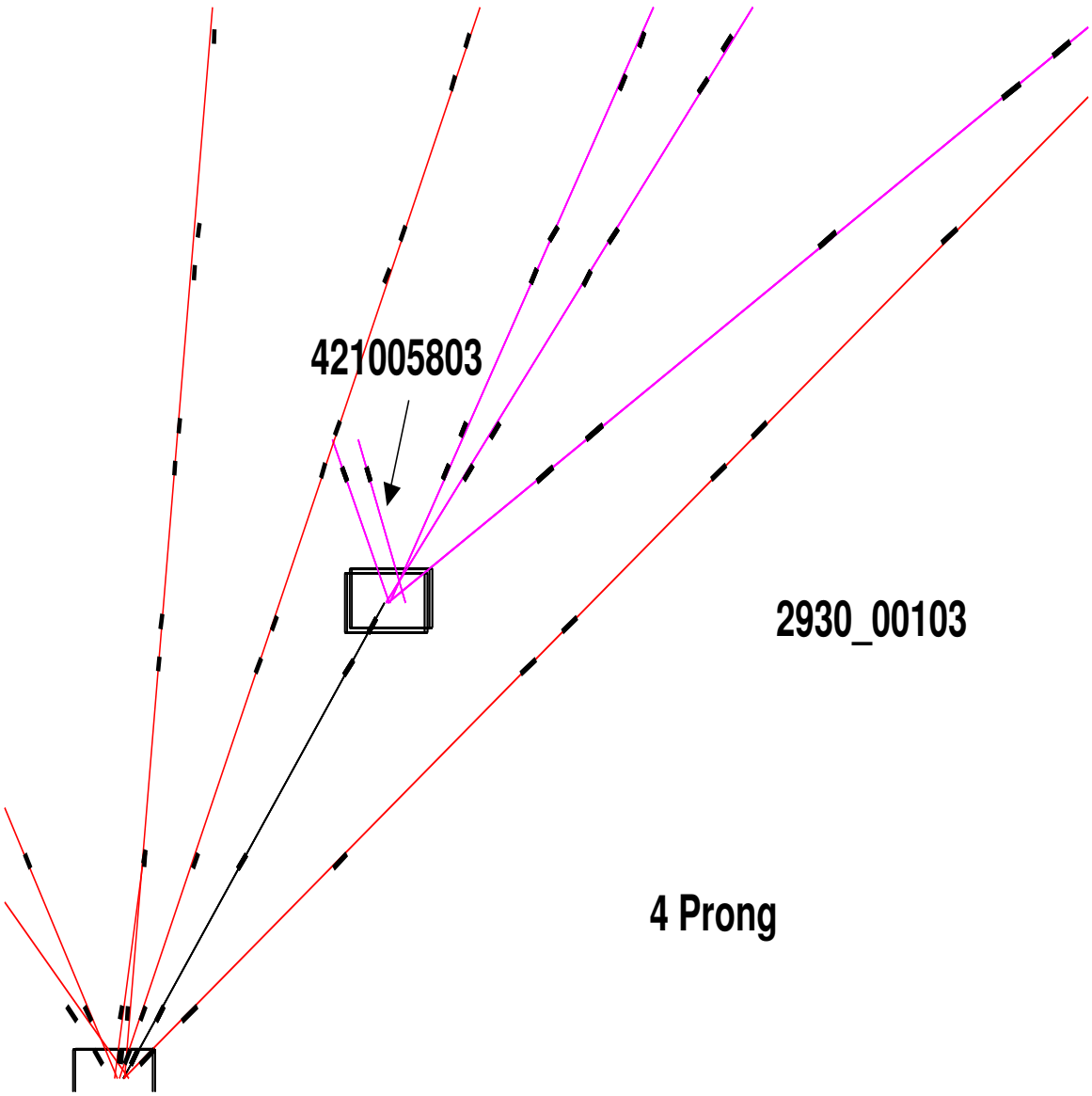


Event	θ	$\Delta\phi$	L	α	P
3227_03420	0.010	1.90	1.8	0.0696	$4.25^{+3}_{-1.37}$

P(τ)	P(charm)	P(hadron)	Material	Daughter
0.00	0.93	0.07	plastic	?

Charm Candidate





Event	θ	$\Delta\phi$	L
2930_00103	0.059	1.34	3.26

P(τ)	P(charm)	P(hadron)	Material
0.00	0.85	0.15	steel

Tau and Charm Candidates

Candidate	Notes	P_τ	P_c	P_{int}	Material
3024_30175	τ kink	67	33	0	plastic
3039_01910	τ kink	98	2	0	plastic
3140_22143	τ kink	97	3	1	steel?
3263_25102	τ kink	14	27	59	steel
3296_18816	τ trident	85	15	0	emulsion
3333_17665	τ kink	98	2	0	plastic
3334_19920	τ trident	99	1	0	plastic
3139_22722	τ short				steel?
3356_17099	τ short				steel
2846_09042	c kink	0	89	11	steel
3065_03238	c kink	0	89	11	steel
3139_01361	c kink	0	97	3	steel
3227_03420	c kink	0	93	9	steel?
3245_22786	c trident	0	94	6	emulsion
2986_00355	neutral c				plastic
3005_11384	neutral c				steel
3073_22977	neutral c				plastic
3137_23878	neutral c				steel
3249_03536	neutral c				plastic
2930_00103	4-prong?	0	85	15	steel

There is a lack of tau candidates in steel. What if we put the existing tau candidates in steel and re-perform parameter analysis?

Probabilities stay about the same:

	Not in steel			In steel		
Candidate	P_τ	P_c	P_{int}	P_τ	P_c	P_{int}
3039_01910	98	2	0	96	3	1
3296_18816	85	15	0	85	15	0
3334_19920	99	1	0	98	1	1

No bias against tau candidates in steel.