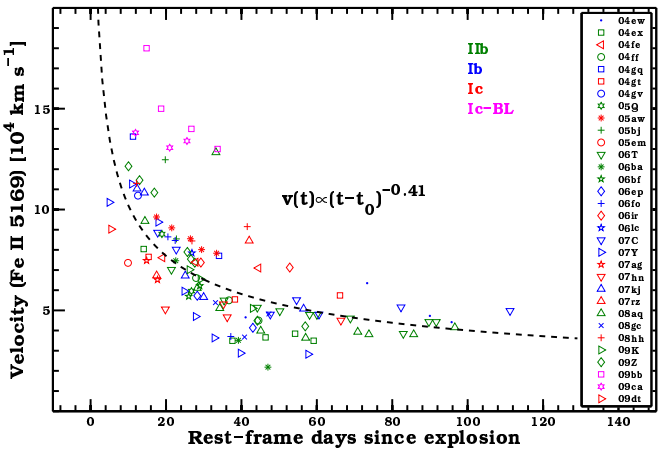
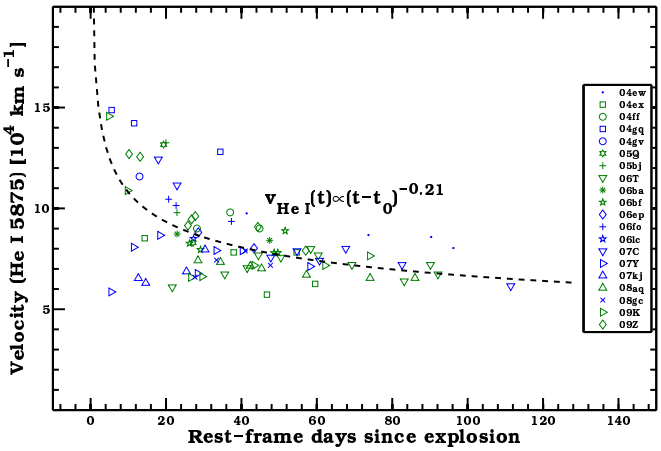
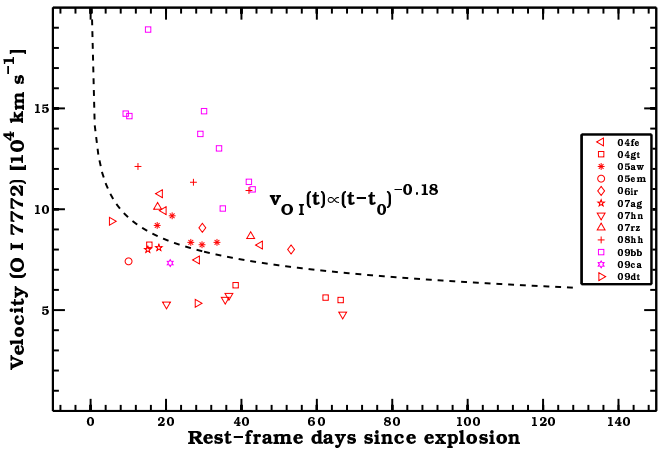

IIb
Ib
Ic
Ic-BL
v(t)∝(t−t0)−0.41
Velocity (Fe II 5169) [10^4 km s^−1]
Rest−frame days since explosion
04ew
04ex
04fe
04ff
04gq
04gt
04gv
05kg
05aw
05bj
05em
06T
06ba
06bf
06ep
06fo
06ir
06lc
07C
07Y
07ag
07hn
07kj
07rz
08aq
08gc
08hh
09K
09Z
09bb
09ca
09dt


v He I(t)∝(t−t0)−0.21
Velocity (He I 5875) [10^4 km s^−1]
Rest−frame days since explosion
04ew
04ex
04ff
04gq
04gv
05kg
05bj
06T
06ba
06bf
06ep
06fo
06lc
07C
07Y
07kj
08aq
08gc
09K
09Z


v O I(t)∝(t−t0)−0.18
Velocity (O I 7772) [10^4 km s^−1]
Rest−frame days since explosion
04fe
04gt
05aw
05em
06ir
07ag
07hn
07rz
08hh
09bb
09ca
09dt