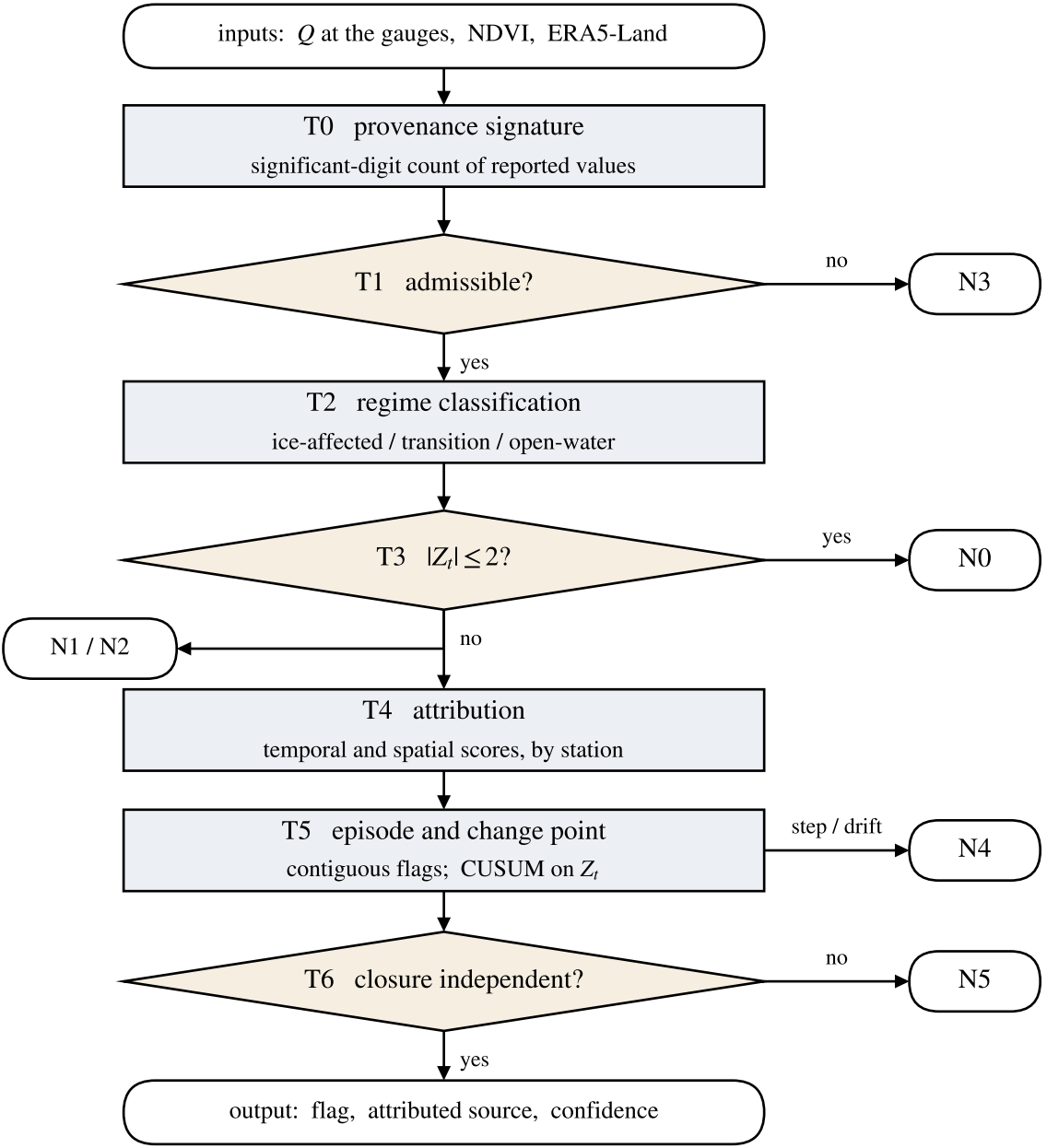

inputs: Q at the gauges, NDVI, ERA5-Land
T0 provenance signature
significant-digit count of reported values
T1 admissible?
no
N3
yes
T2 regime classification
ice-affected / transition / open-water
T3 |Z_t| ≤ 2?
yes
N0
no
N1 / N2
T4 attribution
temporal and spatial scores, by station
T5 episode and change point
contiguous flags; CUSUM on Z_t
step / drift
N4
T6 closure independent?
no
N5
yes
output: flag, attributed source, confidence