

# *Timing System / Data Selection Integration*

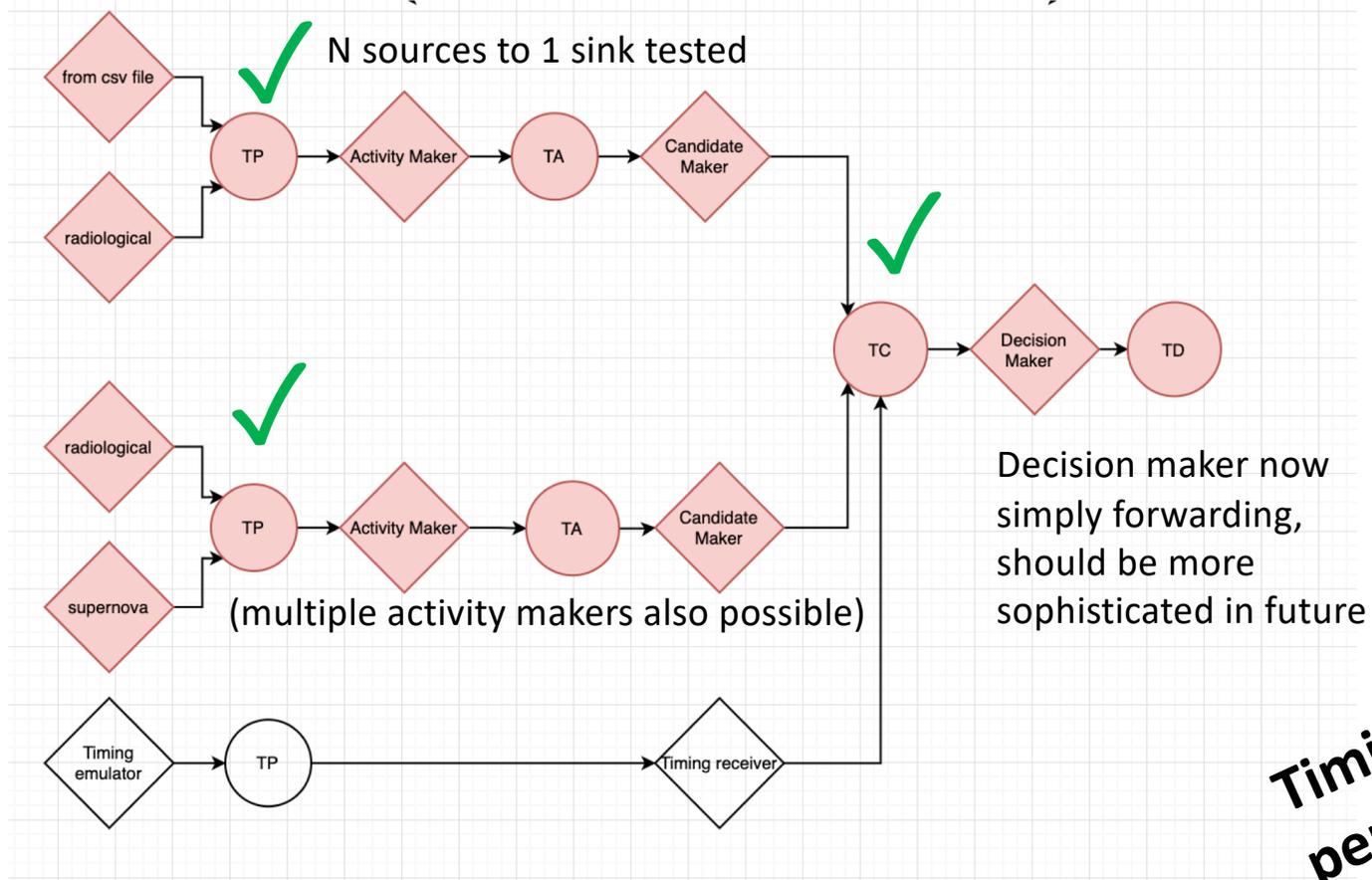
Lukas Arnold, Columbia University

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# Integration

- Wait until physics algorithms are ready?
- Or integrate it into v2.4? → will go for v2.6

# Data Selection System



# Timing message

Field label	Field Size [bits]	Field description
Signal type	32	Contains identifier of the timestamped external signal
Timestamp	64	Timestamp of signal arrival time
Counter	32	Counter of how many external signals have been received so far
Checksum	32	Checksum of message

(J. Brooke, Bristol)

# Read-out map

Signal type	pre_time	Post_time	type
1	-2000	+2000	const
2	-50	+8000	const
...	...	...	const

Trigger Candidate	Value
time_start	Timestamp – pre_time
time_end	Timestamp + post_time
type	

# DS Timing System

- Emulator creates timing Trigger Primitives (timing message)
- Trigger Candidate Maker looks at map by Signal Type ID, translated Timing messages into TCs
- Trigger Decision Maker forwards TCs to the TD queue (to be read by DFO)