ArgoNeuT code - Bug #16639

ArgoNeuT uses the existing lifetime and temperature if query of database fails

05/23/2017 04:02 PM - Tingjun Yang

Status:	Resolved		**Start date:**	05/23/2017
Priority:	Normal		**Due date:**	
Assignee:	Tingjun Yang		**% Done:**	100%
Category:			**Estimated time:**	0.00 hour
Target version:			**Spent time:**	0.00 hour

Description

Ivan Lepetic reported a problem that revealed an issue with the current code. util::LArPropertiesServiceArgoNeuT::ElectronLifetime() returns the existing lifetime value if the query of database failed. This is fine if there is only one run in the job. But if there are multiple runs, the lifetime from a previous run will be returned. This has caused confusion and inconsistent results. I have modified code to use the default lifetime and temperature values from fcl file if the database query failed. This is implemented in lardata:eb35d7d2c662a0bd48221ba40890d4c6e111b759.

History

#1 - 05/23/2017 07:29 PM - Gianluca Petrillo

Is this going to help on the axis of confusion? If the query may randomly fail (like for network connections) you get randomly either the correct or the default lifetime.
If it is important to have access to the correct lifetime, the natural answer to a failed query is to retry and eventually to abort the job.

Just saying.

#2 - 05/23/2017 07:49 PM - Tingjun Yang

The most common failure mode is that the entry for a particular run is not in the database. Retry the query does not help in this case. Before the function would return lifetime from another run if the query was successful before in the same job, which is random. After the changes, it will always return the default value.

The proper fix is to fill the holes in the database. It is not clear we have the manpower for this job.