Table Names:

functions_dim_1_nf → dynamical_systems_nf
- This table contains the core functions in number fields, most likely in 1st dimension, but that info isn't necessary

functions_dim_1_ff → dynamical_systems_ff
- This table contains the core functions in finite fields, most likely in 1st dimension, but that info isn't necessary

graphs_dim_1_nf → graph_data
- This table contains metadata for the graphs of the functions

rational_preperiodic_dim_1_nf → preperiodic_points
- This table contains the orbit structures of the functions

families_dim_1_nf → function_families
- This table contains groups of functions belonging to the same mathematical family

citations ✅
- This table is a reference library, the name is clear enough

finite_fields ✅
- This table defines the system's environment, the name is clear enough

Column Names:

ordinal (functions_dim_1_nf) → system_index
- ordinal is too vague, it serves as an extra identifier for functions if they have the same degree and invariants (sigma_one, sigma_two)

cardinality (graphs_dim_1_nf) → total_nodes or preperiodic_cardinality
- cardinality is too vague, it is amount of preperiodic points or nodes in a system

id (functions_dim_1_ff) → function_id
- For consistency with functions_dim_1_nf.lfamily_id

automorphism_group_cardinality (functions_dim_1_nf) → auto_group_size
- To be more concise, the original title is too long

num_rational_periodic_points (rational_preperiodic_dim_1_nf) → periodic_count
- To be more concise, the original title is too long

rational_preperiodic_points (rational_preperiodic_dim_1_nf) → preperiodic_points
- In this case, rational is unnecessary and can be dropped

num_rational_preperiodic_points (rational_preperiodic_dim_1_nf) → preperiodic_count
- To be more concise, the original title is too long

rational_periodic_points (rational_preperiodic_dim_1_nf) → periodic_points
- In this case, rational is unnecessary and can be dropped