

1096-VN-2235 **Feryal Alayont*** (alayontf@gvsu.edu), GVSU Mathematics Department, 1 Campus Dr.,
Allendale, MI 49401. *A new combinatorial interpretation of generalized Genocchi numbers.*

The classical rook theory can be generalized to three and higher dimensions by letting rooks attack along hyperplanes. With this generalization, it is possible to find a family of three and higher dimensional boards whose maximum rook numbers correspond to generalized Genocchi numbers. From this rook theory perspective, it follows that generalized Genocchi numbers count permutation-tuples with certain conditions. (Received September 17, 2013)