The s-geodesic-transitivity of graphs

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In a finite graph Γ, a geodesic from a vertex u to a vertex v is one of the shortest paths from u to v, and this geodesic is called an i-geodesic if the distance between u and v is i. The graph Γ is said to be *s-geodesic-transitive* if the graph automorphism group is transitive on the set of s-geodesics. In this talk, I will compare the s-geodesic-transitivity of graphs with other two well-known transitive properties, namely s-arc-transitivity and s-distance-transitivity, and determine the local structure of 2-geodesic-transitive graphs, and also give some results about the family of locally disconnected 2-geodesic-transitive but not 2-arc-transitive graphs.