

Understanding of the Complex Dynamics of the *Cage Instability Phenomenon* with the 'Stability Map'

APO-GEE announces an exclusive engineering offering based on groundbreaking 'Stability Map' concept

APO-GEE, the deep-tech start-up based in Belgium, specialized in ball bearing engineering, announces a new exclusive engineering offer, which consists in a comprehensive dynamics study of ball bearing cages using groundbreaking **Stability Map** concept.

A ball bearing cage can exhibit three types of behavior: stable, jostled/ agitated, or unstable. It is crucial to understand that an unstable ball bearing cage can have severe consequences on the overall performance of the bearing and the mechanical system.

Based on a deep understanding of the complex dynamics of the cage instability phenomenon, and using advanced computational methods and simulation tools, APO-GEE is implementing an innovative technique based on the construction of original Stability Maps designed for addressing ball bearing cage instabilities.

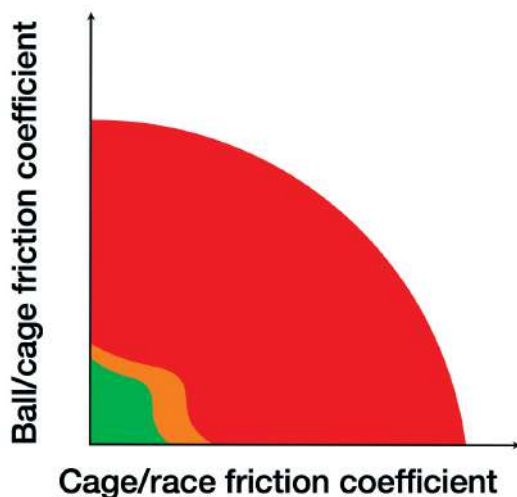
Stability Maps aim to optimize the performance and reliability of ball bearing cages, and consequently the bearings themselves, enabling engineers to design reliable mechanisms and assemblies.

More info on the stability maps: <https://www.apo-gee.tech/stability-maps>.

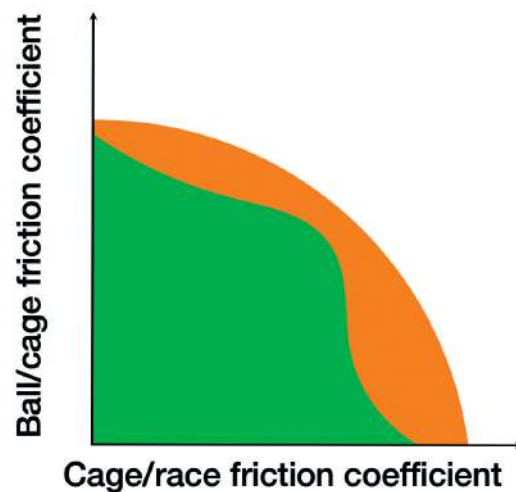
APO-GEE is an R&D and intense IP minded Belgian start-up. The company provides tailor-made ball bearings solutions notably for aerospace and defense applications, and thus ensures success of related projects and missions.

APO-GEE has solved the cage instability problem, to which no fully satisfactory response has been possible for more than 50 years.

Classic cage design



Butterfly cage design



Stable ● Jostled ● Unstable ●