

Abstract of Talk in INSA-Lyon on 28 May, 2015

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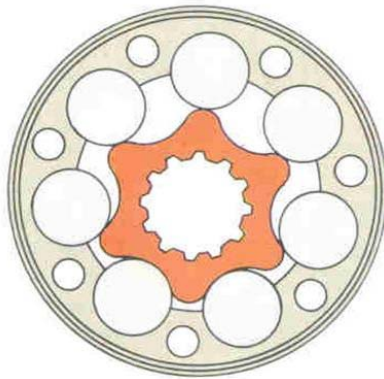
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Title : Active Contact Problems in Harmonic Drive & ORBIT Motor - A tale of two Machines

With a brief on the Institute, where the speaker is working and his research activities, analysis on **Active Contact Problems in Harmonic Drive and ORBIT Motor** will be presented. Harmonic Drive being a high transmission ratio epicyclic gear unit and ORBIT motor being a Low Speed High Torque (LSHT) hydrostatic unit, both with only one external toothed gear engaged to ring gear have kinematic similarities, which will be presented. How load shared by active teeth contacts in such units with cycloidal class of teeth affect the performances will be discussed next. Results on Inter-chamber leakages through critical contacts in geometrically form closed star-ring (rotor-stator) of ORBIT motor and secondary contacts in Harmonic Drive will finally be presented.



Epitrochoid Generated Star-Ring of ORBIT Motor.



Harmonic Drive