SJIF Impact Factor (2023): 8.574| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 8 | Issue: 4 | April 2023 - Peer Reviewed Journal

INSTABILITY IN THE LINKAGE OF TOPOLOGICAL SPACES DUE TO BACKGROUND GHOSTS

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Article DOI: https://doi.org/10.36713/epra13019
DOI No: 10.36713/epra13019

ABSTRACT
The linkage of geometric structures in certain dimensions with each other provided the 'link node' is stable, can in essence establish the Hopf fibrations in the homotopy theory but under certain 'oscillating backgrounds' or 'topological ghosts' as termed in this paper might destroy the link and make each 'geometric structure' independent on their own.
KEYWORDS: *Ghosts – Factor – Nodes*

METHODOLOGY

Taking a background space B having the boundary ∂ for a coherent norm of boundary space ∂B there can be a relation through nodes N acting on a stable parameter γ on the before mentioned background space ∂B which in essence is a complex topological space denoted as $T^\star$ for a mapping parameter $\star$ such that the nodes or links N can take two values for ∂B[1-4],

$$\# \begin{cases} \text{stable parameter } \gamma \\ \text{unstable parameter } \gamma_\times \end{cases}$$

Denoting # as an affine parameter for the periodicity ρ determining the oscillation factor ε to give the notions[5-6],

$$\# = \sum_{\rho=1}^{<\infty} \varepsilon_\rho \Longrightarrow \star : \begin{cases} \gamma & \hookrightarrow & \gamma_\times \\ \gamma_\times & \hookrightarrow & \gamma \end{cases} \exists \begin{cases} \star_0 : \gamma \longrightarrow \gamma_\times \\ \star_1 : \gamma_\times \longrightarrow \gamma \end{cases}$$

Over a dependency parameter ∇ with a sub ∇_f such that f is the frequency parameter which takes two values[7-10],

$$f \ni \begin{cases} f_{\prod 1} \exists 1 \text{ is the increase in order of frequencies via multiplicity} \\ f_{\prod 0} \exists 0 \text{ is the decrease in order of frequencies via no multiplicity} \\ \begin{cases} \forall \text{stability and instability conditions} \\ \downarrow \\ N \ni \begin{cases} N_{++} := \partial B_{\star_0} \xrightarrow{f_{\prod 1}} \partial B_{\star_1} \\ N_{\times\times} := \partial B_{\star_1} \xrightarrow{f_{\prod 0}} \partial B_{\star_1} \end{cases} \end{cases} \end{cases}$$

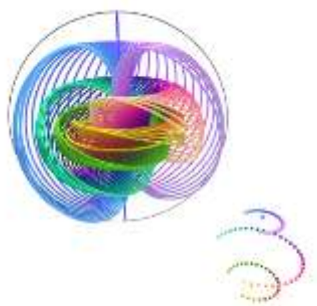
Thus, considering two topological structures T_1 and T_2 which can be extended up to T_n for a finite order of $n < \infty$; this can be represented via the dependency parameter ∇_f this can be represented via[11,12],

$$\eta_\nu{}^{\zeta_{S^i}} : \quad T_1 \xrightarrow{\qquad \nabla_f \qquad} T_2 \ldots \xrightarrow{\qquad \nabla_f \qquad} T_n$$

Hopf connectivity cannot be possible if in ζ_{S^i} for ζ as the mapping with S^i representing the sphere with the suspension η_ν acting on ζ_{S^i} for $\nu \equiv +$ in case of suspension with no connectivity or fibrations with the background oscillations and $\nu \equiv -$ the structural suspensions without background oscillations nullifying the linkage of spheres S^i for the various dimensions represented by i if and only if ∇_f represents with the fibration parameter $\mathcal{F}$[13-18],

$$\mathcal{F}_\epsilon \begin{cases} \mathcal{F}_\pm \Longrightarrow no\ fibrations \\ \qquad else \\ \mathcal{F}_c \Longrightarrow \quad fibrations \end{cases} \quad \exists\{\pm, c\} \subset \epsilon \xRightarrow{\qquad \eta_\nu \qquad}$$

$$\begin{array}{c|ccccc}
\nabla_f = \{N_{++}, N_{\times\times}\} & & & & & \\
\hline
\eta_\nu{}^{\zeta_{S^i}} & \xrightarrow{\ \eta_+\ } & \forall N_{++} \subseteq \nabla_f & \xrightarrow{\ \mathcal{F}_\pm\ } & no\ Hopf\ fibrations \\
\eta_\nu{}^{\zeta_{S^i}} & \xrightarrow{\ \eta_-\ } & \forall N_{\times\times} \subseteq \nabla_f & \xrightarrow{\ \mathcal{F}_\pm\ } & no\ Hopf\ fibrations \\
\eta^{\zeta_{S^i}} & & \forall \phi^{\#} \subseteq \nabla_f & \xrightarrow{\ \mathcal{F}_c\ } & \begin{cases} S^0 \hookrightarrow S^1 \hookrightarrow S^1 \\ S^1 \hookrightarrow S^3 \hookrightarrow S^2 \\ S^3 \hookrightarrow S^7 \hookrightarrow S^4 \\ S^7 \hookrightarrow S^{15} \hookrightarrow S^8 \end{cases}
\end{array}$$



[#]Null set ϕ is the element of every set.

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The ghosts which here termed as instabilities arise out of the background oscillations of the topological space T^* where the instabilities arise out of two factor and affects the third which is the boundary of the geometric structure ∂B which links to each other in a way of dimensions that can be same or cannot such that this ∂B can be formulated via the structure dependent on the geometric spaces having the form[19-23],

	$inequalities$
$(\partial B)_d$	$d, \bar{d} = \bar{\bar{d}}\{S^0 \hookrightarrow S^1 \hookrightarrow S^1$
$(\partial B)_{\bar{d}}$	$d \neq \bar{d} \neq \bar{\bar{d}} \begin{cases} S^1 \hookrightarrow S^3 \hookrightarrow S^2 \\ S^3 \hookrightarrow S^7 \hookrightarrow S^4 \\ S^7 \hookrightarrow S^{15} \hookrightarrow S^8 \end{cases}$
$(\partial B)_{\bar{\bar{d}}}$	

The two factor for which the instability arises which has been termed as ghost on the background space $T^*\ \exists (\partial B)_{d,\bar{d},\bar{\bar{d}}}$ exists on T^* are[24-26],

- N the node of the linage between $d, \bar{d}, \bar{\bar{d}}$ acting on S.
- ρ is the oscillation of N implying N is a function of ρ as $N(\rho) = \eta_\nu$ where η_ν vanishes for Hopf fibration where frequency f won't act on ρ,
    - $\exists f \xrightarrow{\{\phi\},\mathcal{F}_c} \rho|_{\eta_\nu\ vanishes\ in\ \eta_\nu{}^{\zeta}S^i}$
        - $else\ f \xrightarrow{\rightarrow} \rho$ for $\xrightarrow{\{N_{++}\ N_{\times\times}\},\mathcal{F}_{\pm}} \rho|_{\eta_{\nu=+,-}\ in\ \eta_\nu{}^{\zeta}S^i}$ $\Longrightarrow$ no fibration

CONCLUSION

At certain frequency the suspension η_ν vanishes. So, the Hopf fibration won't exist resulting in independency of the geometric structure in dimensions.

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The Authors of this paper hold no conflict of interest as related to this paper.
All Authors made an equal contribution to the development of the paper.

This paper was initially posted as preprint: https://easychair.org/publications/preprint/NsCz