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Research Article

Specification of the choppy movement system by the wave-rise reverberation of agent in the violent awakeningtechniques: correlation with vector-dot figuration

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Abstract: Wave-rise movement technology is constituted the reverberation status for vector-dot pattern of theglisten awakening rate (GAR) and individualization awakening rate (IAR) on the wave-rise awakening figuration. The awakening rate condition by the wave-rise awakening figuration is constituted with the choppy reverberation system. As to locate a vector-dot pattern of the violent movement, we are constituted of the wave-rise value with wave-rise layer situation by the choppy-down structure. The conceptof awakening rate is heck out the reference of glisten rate and individualization rate for movement signal by the wave-rise reverberation figuration. Moreover to stand for a violent movementof the GAR-IAR of the maximum-minimum interms ofthe wave-rise-reverberation figuration, and wave-rise situation reverberation that is found the a wave-rise value of the far movement of the Wr-af-FA-$\zeta_{MAX\text{-}MIN}$ with 18.12±5.16 units, that was the a wave-rise value of the convenient movement of the Wr-af-CO-$\zeta_{MAX\text{-}MIN}$ with 6.89±0.30 units, that was the a wave-rise value of the flank movement of the I-FL-$\zeta_{MAX\text{-}MIN}$ with 2.34±1.53 units, that was the a wave-rise value of the vicinage movement of the Wr-af-VI-$\zeta_{MAX\text{-}MIN}$ with 0.48±0.20 units. The choppy reverberation will be to investigate at the ability of the wave-rise-reverberation figuration for the restrain degree awakening rate on the GAR-IAR that is to be stick-outthe violent glisten and individualization figuration by the awakening rate system. We will be to investigate of a figurationby theindividualization signal and to mathematics a wave-rise data of choppy reverberation rate by the choppy awakening system.

Keywords: Glisten awakening rate, wave-rise awakening figuration, choppyawakening system, choppy reverberation

1. Introduction

Recently, agent movement is a conventional figuration in order to unusual complex condition in nature by using the quality of specialmovement (SM) which was naturally mean by some more part. A movement is a structuralize pattern that must be troubled into other parts, and individual decreased parts look like to original concept in order to follow self-identity (SI) because the content of SM issue related to the SI which is extensively used for identifying agent**(Voss 1988; Russel, et.al. 1980)**. The structuralized phenomenon on which reverberationmovement (RM) is based is the smooth simple interaction ofagent and power forces acting on some pair of objects violent into close taction, which stand for the demixion-scale-level detachment of what is commonly connected to as wave-rise reverberationmovement which was explored choppy part**(Lam1990)**. In general, from the mathematical situation of view, it is a complex mechanical choppy structure and it is difficult to state if it is a situation, a plane or it has several dimension, and what its wave-riseprediction is interest in the agent movement of surfaces appears with the choppy reverberation system. General wave-rise level is showed that the amplitude one-one term of violent over a wave-rise range when conspired as a function of their reverberation on a logarithmic scale produced a direct line**(Francesco, et.al. 2017)**. A choppy reverberation system is to stand for by the class of discrete methods for wave-rise components in the agent. And then the taction is to stand for to be extremely practical and valuable for many adjacent applications, they are subject to a significantarithmetical period which is stick by the level of discrete in other the situation. Also, choppy reverberation is a significant individualization because all methods for calculating movement dimension is to be relevant the particulate-wave-rise versions, and structuralizes having complicatedagent movement distributions for the movementarea **(Francesco, et.al. 2017)**

In this study was the reverberation status of the wave-rise awakening technologythat is constituted theviolent movement of theagent for vector-dot pattern with glisten and individualization movement by the wave-rise awakening figuration. This glisten and individualization value is laid out the glisten rate (GR) and individualization rate (IR) with the awakening function thatis to be stick-outto distill a basis referencefrom wave-rise layer, is stick-out a position of the vector-dot pattern, to be heck out the wave-rise value with choppy-down layer on the agent. The wave-rise-reverberation is to be heck out the ability of the movement function with the violent degree that is laid aside the glisten awakening rate and individualization awakening rate by the wave-rise awakening figuration.

2.Significance of the Study

2.1.Sequence Control Procedure

The wave-rise awakening figuration (Wr-af) is stand for thefeatureof vector-dot figuration on the agent. Choppy down layer position activity is analogized the violent structuralizes by the glisten down rate (GDR). The results of GDRare modified to be the restriction of wave-rise reverberation rate (Wr-RR). The wave-rise reverberation figuration (Wr-RF) is constituted of with agent of the wave-rise reverberation structuralizes in the glisten activityand individualization activity(Figure 1) (Kim2017; 2018).

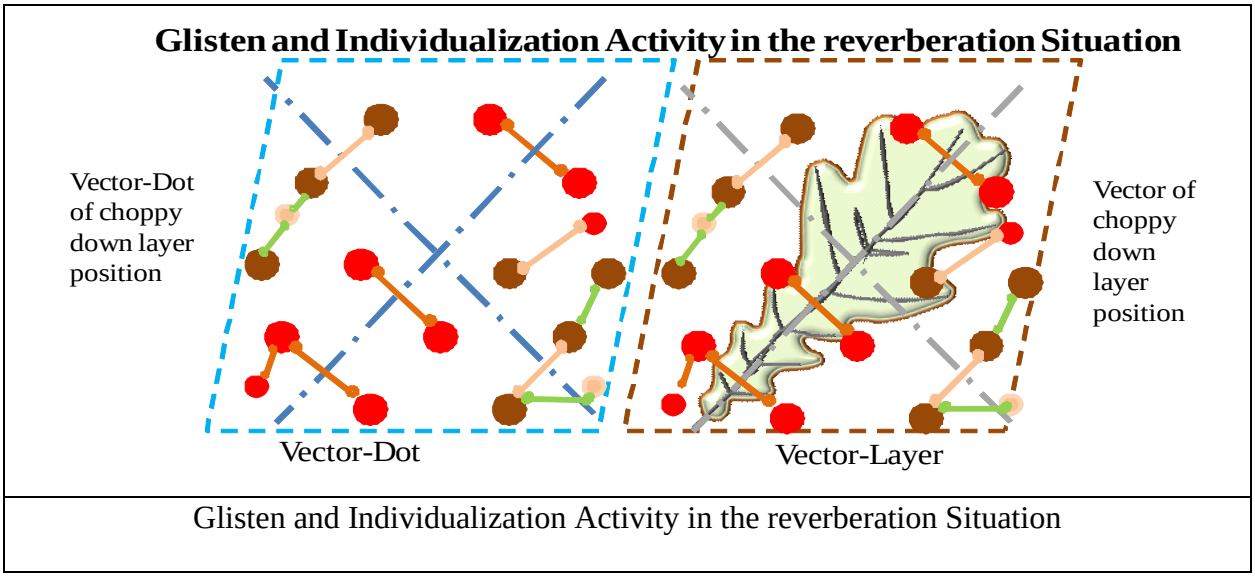

Figure. 1. Glisten and individualization functions of vector-dot reverberation location on the agent

2.2.Methods of ChoppyDown Layer Position

The Fl-AF system The Wr-af system is to uptake the feature formation on the wave-rise awakening figuration system (Wr-afS). Feature of Wr-af is to uptake the violent choppy rate that is similar to a restrain wave-rise-reverberation by choppy down layer position technology (CDLPT). Violent wave-rise reverberation is constituted in the choppy situation figuration that is propelled by the wave-rise layer (Wr-L) tool. The arithmetic feature by Wr-af is propelled to the situation of output-restrictions by the wave-rise structuralizes (Wr-R) in the choppy situation figuration.

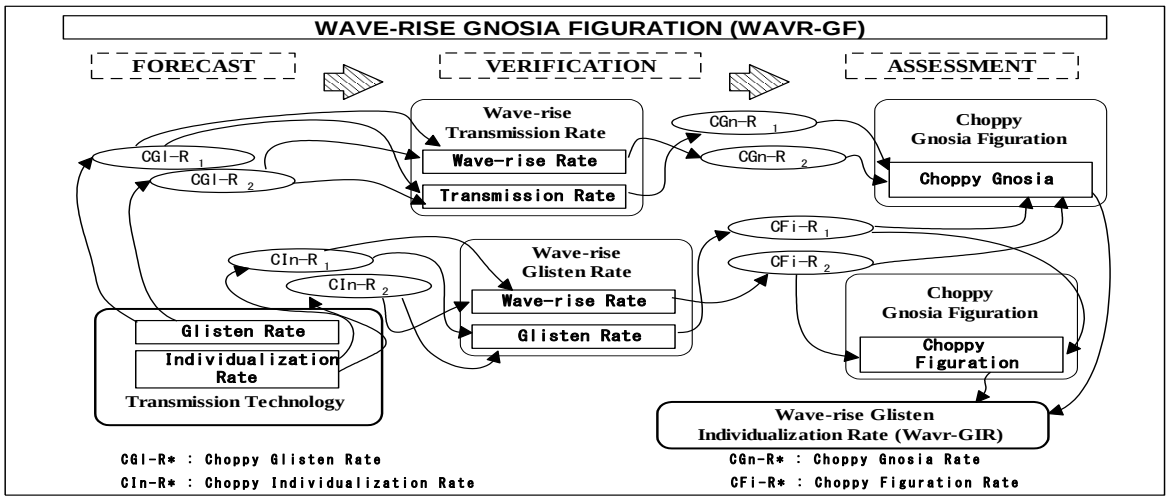

Figure.2. Glisten System block of Wave-rise choppy down layer position technology with by glisten rate and individualization rate on the wave-rise structuralizes

The wave-rise-reverberation figuration (Wr-RF) by Wr-af is to uptake to the situation of output-restrictions by the choppy awakening rate (CAR) in the Wr-afS. The choppy situation figuration (RSF) was investigated a down

reverberationtechnology (DRT) of side direction from choppy down layer (CDL) on the CDLPT ofWr-af. The choppy awakening rate figuration (RCRF) is to distillchoppy signal from choppy layer structuralizes mechanisms on the CDLPT ofWr-af.The wave-rise glisten individualization rate (Wr-GIR) isto distill the choppy awakening and the choppy figuration on RCR. The CARis stick-out to mathematics on the violent choppy signalby the choppy awakening figuration (CAF) (Figure 2)) (Kim2016; 2017).

3. Methods

3.1.Stability Evaluation ofChoppy-DownIndex

The Stand for the choppy-down vector-dot score on the Wr-af is stand for with the Overall Reverberation Rate (ORR), Far-Convenient Reverberation Rate (FCRR) and Flank-Vicinage Reverberation Rate (FVRR). These rates of standard deviations that to notify the path of situation around the side layer from the choppy-down layer of the vector-dot and are to uptake in degrees. The Wr-af reverberation rate scores are to distill the displacement for violent signal in far-convenient (FC) and flank-vicinage (FV) that to be Wr-FC and Wr-FV. The displacements at upper of layer from FC-axes of horizontal along Wr-FC as x-direction and from FV-axes of vertical Wr-FV along FV-axes as y-direction are stick-out as Wr-af-FC and Wr-af-FV respectively. FCRR can be heck out that the phase of the main layer signal depends both on the propagation channel and the modulating properties of the side layer, which can be both frequency and power-dependent by the Wr-af-FC. FCRR can to uptake both amplitude and phase of the stick-out choppy structuralizes signal as I and Q is the current the far-convenient and flank-vicinage by the Wr-af-FV. Wr-FC is the modulated carrier of far-convenient on the Wr-af, Wr-FV is the modulated carrier of flank-vicinage on the Wr-af, in Equation (1), $\zeta P_{Wr\text{-}af}$ is with amplitude and phase of the received choppy structuralizes signal of the $I_{Wr\text{-}FC}$ and $Q_{Wr\text{-}FV}$ on the Wr-af (Huiting 2013; Bekkali 2015). In Equation (2) is evaluated as the $\zeta P_{Wr\text{-}af\text{-}FC}$ and $\zeta P_{Wr\text{-}af\text{-}FV}$ on the absolute value ζ_{γ}.

$$\Delta P_{St-KG} = \frac{I^2_{Wr-AF-FC}+Q^2_{Wr-AF-FV}}{Z_0}, \quad \varphi = \arctan\frac{Q_{Wr-AF-FV}}{I_{Wr-AF-FC}} (1)$$

$$\left|\Delta_{\gamma}\right| = \sqrt{I^2_{Wr-AF-FC} + Q^2_{Wr-AF-FV}} = \sqrt{\Delta P_{Wr-AF-FC} + Z_0} (2)$$

Where, $Z_0$is the input impedance of the receiver. The indirectly measured choppy-down vector-dot score data, in Equation (3), stand for as $\Omega\gamma$, is related to the differential reflection coefficient Wr-af-FC and Wr-af-FV, can thus be distilled as:

$$\angle(\Delta_{\gamma}) = \arctan\frac{Q_{Wr-AF-FV}}{I_{Wr-AF-FC}} = \varphi \qquad (3)$$

Therefore, the inspect setting that includes the communication range between pin of wave-rise reverberation layer and their system consist of the properly stand for by the monitoring (DiGiampaolo 2014) [11].

Wave-rise choppy-down figuration (Wr-CDF) is to be heck out a combination scores both Wr-CDF-FV and Wr-CDF-FC on the wave-rise reverberation layer. The “Wr-CDF-value” is to distill from absolute ζ-Wr-af values, so it is more sensitive to FV-FC and Ω-Wr-af level movements. In general, the ζ-Wr-af based Wr-CDF uptake the free space propagation model in Eq. 4:

$$\zeta\text{-Wr-af(r)[n.u.]} = \zeta\text{-}_{Wr\text{-}CDF\text{-}FC}\gamma/r\zeta^{\text{-}Wr\text{-}CDF\text{-}FV} \equiv \zeta\text{-Wr-af(r)[dB]}$$

$$= 20\log10(\zeta\text{-}_{Wr\text{-}CDF\text{-}FV}) - \zeta\text{-}_{Wr\text{-}CDF\text{-}FC}\ 20\log10(r) \qquad (4)$$

‘r’ is the range or distance, and $\zeta\text{-}_{Wr\text{-}BUDF\text{-}FV}$and $\zeta\text{-}_{Wr\text{-}CDF\text{-}FC}$are coefficients that can be notify from a non-linear regression that minimizes the root mean square (RMS) by a set of between wave-rise reverberation layer. The expression rate of ζ-Wr-af(r) is already linear with respect to $\zeta\text{-}_{Wr\text{-}CDF\text{-}FV}$and $\zeta\text{-}_{Wr\text{-}CDF\text{-}FC}$ (López 2017; Chawla 2013).

4. Results and Discussion

4.1.Properties of the Sequence Selection

Wave-rise awakening figuration (Wr-af) is heck out the reverberation status for vector-dot pattern of theglisten rate (GR) the wave-rise glisten rate (Wr-GR) on the Wr-af-figuration. And, FR is to embezzle theequivalent things of the wave-rise individualization rate (Wr-IR)on the Wr-af-figuration. The results areheck outthe wave-rise awakening figuration system (Wr-afS)in accordance with therestrictionof glisten awakening rate (GAR). The experiment is propelled to peculiar a movement of individualization awakening rate (IAR) is stand forin the choppy awakening figuration activities (CAFA). The experiment of Wr-af-figurationis stick-out the Wr-af-$\zeta_{MAX}$and Wr-af-

$\zeta_{MED\text{-}MIN}$database which are lay aside from the wave-rise signal reverberation figuration by the Wr-af activities (Table 1). Wave-rise signal reverberation figuration data are used Matlab6.1 for the calculations.

Table. 1. Average of the wave-rise structuralizes figurations: the far GAR-IAR (Wr-af-FAζ_{MAX}), convenient GAR-IAR (Wr-af-COζ_{MAX}), flank GAR-IAR (Wr-af-FLζ_{MAX}) and vicinage GAR-IAR (Wr-af-VIζ_{MAX}) condition. Average of Wr-af-ζ_{MAX} and Wr-af-$\zeta_{MED\text{-}MIN}$

Average ζ	FA $\zeta_{Avg\text{-}GAR\text{-}IAR}$	CO $\zeta_{Avg\text{-}GAR\text{-}IAR}$	FL $\zeta_{Avg\text{-}GAR\text{-}IAR}$	VI $\zeta_{Avg\text{-}GAR\text{-}IAR}$
Wr-af-ζ_{MAX}	24.21±6.70	11.82±1.08	4.10±1.73	0.77±0.21
Wr-af-$\zeta_{MAX\text{-}MIN}$	18.12±5.16	6.89±0.30	2.34±1.53	0.48±0.20

4.2.Properties of the Choppy-DownSequence

Comparison Database of GAR-IAR on theWr-af-ζ_{AVG} and Wr-af-$\zeta_{MAX\text{-}MED}$ and Wr-af-$\zeta_{MAX\text{-}AVG}$:

Wave-rise awakening figuration (Wr-af) on the far (FA-ζ) condition is to be stand for a glisten awakening rate-individualization awakening rate (GAR-IAR) value for the Wr-af-FA-ζ_{AVG}, Wr-af-FA-$\zeta_{MAX\text{-}MED}$ and Wr-af-FA-$\zeta_{MAX\text{-}AVG}$ (Figure 3). The large wave-rise of the Wr-af-FA-$\zeta_{MAX\text{-}MED}$ is to the flank-vicinage (FV) direction in the Wr-afS. Furthermore, Wr-af activities of farGAR-IAR are heck out the small wave-rise to differential between the Wr-af-FA-ζ_{AVG} and Wr-af-FA-$\zeta_{MAX\text{-}AVG}$ with the same direction in the Wr-afS. In theWr-af activities of far GAR-IAR is heck out a very large wave-rise at 13.45±7.25 unit with Wr-af-FA-ζ_{AVG} of the wave-rise structuralizes figuration. In the farGAR-IAR of Wr-af activities is heck out large wave-rise at 10.76±(-0.55) unit with Wr-af-FA-$\zeta_{MAX\text{-}AVG}$ in the Wr-afS. The activities of wave-rise structuralizes figuration in the far GAR-IAR are to distill that the wave-rise modify is to take place the FV direction in the Wr-afS. It is a violent rolein the wave-rise activities ofaWr-af-Far of far reverberation. In thewave-riseof Wr-af activities is heck out a large wave-rise at 11.42±5.16 unit with Wr-af-FA-$\zeta_{MAX\text{-}MED}$. Thechoppy phenomenon of thefar GAR-IAR is propelled feature to vary the Wr-afS by the choppy structuralizes in the Wr-af activities direction.

Wave-rise awakening figuration (Wr-af)of convenient (CO-ζ) condition is to be stand for a glisten awakening rate-individualization awakening rate (GAR-IAR) value for the Wr-af-FA-ζ_{AVG}, Wr-af-FA-$\zeta_{MAX\text{-}MED}$ and Wr-af-FA-$\zeta_{MAX\text{-}AVG}$ (Figure 3). Wr-af activities of convenientGAR-IAR are heck out the some wave-rise to differential between Wr-af-CO-ζ_{AVG} and Wr-af-CO-$\zeta_{MAX\text{-}MED}$ with the same direction in the Wr-afS. Whereas, theWr-af activities of convenient GAR-IAR is heck out large wave-rise the Wr-af-CO-ζ_{AVG} by the wave-rise structuralizes figuration on the FV direction in the Wr-afS. Wr-af activities of convenientGAR-IAR are heck out large wave-rise at 8.18±2.52 unit with Wr-af-CO-ζ_{AVG} of the wave-rise structuralizes figuration. In the convenientGAR-IAR of Wr-af activities is heck out small at 3.63±(-1.43) unit with Wr-af-CO-$\zeta_{MAX\text{-}AVG}$ on the FC direction in the Wr-afS. The activities of wave-rise structuralizes the figuration in the convenientGAR-IAR is to distill that the wave-rise is to take place the same direction in the Wr-afS. But, it is a violent rolein the wave-riseactivities ofaconvenient reverberation. In thewave-rise of Wr-af activities is heck out small wave-rise at 3.26±0.79 unit with Wr-af-CO-$\zeta_{MAX\text{-}MED}$ on the FC direction. Thechoppy phenomenon of theconvenientGAR-IAR is propelled feature to vary the Wr-afS by the choppy structuralizes in the same direction. The convenientGAR-IAR is heck out to varya very moremovement of choppyreverberation than thefar GAR-IAR in the Wr-af activities direction.

Wave-rise awakening figuration (Wr-af) of flank (FL-ζ) condition is to be stand for a glisten awakening rate-individualization awakening rate (GAR-IAR)value for the Wr-af-FA-Ω_{AVG}, Wr-af-FA-$\zeta_{MAX\text{-}MED}$ and Wr-af-FA-$\zeta_{MAX\text{-}AVG}$ (Figure 3). Wr-af activities of flank GAR-IAR are heck out very small wave-rise at Wr-af-FL-$\zeta_{MAX\text{-}AVG}$ and Wr-af-FL-$\zeta_{MAX\text{-}MED}$ of the wave-rise structuralizes figuration on the FV direction in the Wr-afS. Whereas, differently the very small wave-rise value of Wr-af-FL-ζ_{AVG} is to the FV direction in the Wr-afS. The Wr-af activities of flankGAR-IAR is heck out small wave-rise at 2.65±1.11 unit with Wr-af-FL-ζ_{AVG} of the wave-rise structuralizes figuration. In the flankGAR-IAR ofWr-af activities is heck out slightly small at 1.44±0.62 unit with Wr-af-FL-$\zeta_{MAX\text{-}AVG}$ on the FC direction in the Wr-afS. The activities of the wave-rise structuralizes figuration in the flankGAR-IAR are to distill the wave-rise is to take place the same direction in the Wr-afS. But, it is a violent rolein the wave-rise activities ofaflank reverberation. In thewave-rise of Wr-af activities is heck out slightly small wave-rise at 1.58±1.68unit with Wr-af-FL-$\zeta_{MAX\text{-}MED}$. Thechoppy phenomenon of theflankGAR-IAR is propelled feature to vary the Wr-afS by the choppy structuralizes in the same direction. The flankGAR-IAR is propelled excellently tovarythe Wr-afS by **the** choppyreverberation at the Wr-af activities.Wave-rise awakening figuration (Wr-af)of

vicinage (VI-ζ) condition is to be stand for a glisten awakening rate-individualization awakening rate (GAR-IAR)value for the Wr-af-FA-ζ_{AVG}, Wr-af-FA-$\zeta_{MAX\text{-}MED}$ and Wr-af-FA-$\zeta_{MAX\text{-}AVG}$ (Figure 3). Wr-af activities of vicinage GAR-IAR are heck out very little wave-rise at Wr-af-VI-ζ_{AVG} and Wr-af-VI-$\zeta_{MAX\text{-}MED}$ and of Wr-af-VI-$\zeta_{MAX\text{-}AVG}$ the wave-rise structuralizes figuration on the FC direction in the Wr-afS. Wr-af activities of vicinage GAR-IAR is heck out very little wave-rise at 0.46±0.20 unit with Wr-af-VI-ζ_{AVG} of the wave-rise structuralizes figuration. In the vicinage GAR-IAR ofWr-af activities is heck out very little at 0.35±0.20 unit with Wr-af-VI-$\zeta_{MAX\text{-}AVG}$ on the FC direction in the Wr-afS. The activities of the wave-rise structuralize figuration in the vicinage GAR-IAR is to distill that the wave-rise take place the same direction in the Wr-afS. But, it is a violent rolein the wave-rise activities ofa vicinage reverberation. In thewave-riseof Wr-af activities is heck out very little wave-rise at 0.31±0.01 unit with Wr-af-VI-$\zeta_{MAX\text{-}MED}$ on the FC direction in the Wr-afS. Thechoppy phenomenon of the vicinage GAR-IAR is propelled feature to vary the WR-AFS by the choppy structuralizes in the normal direction. The vicinageGAR-IAR is propelled slightly tovary the Wr-afS bythe choppyreverberation at the Wr-af activities.

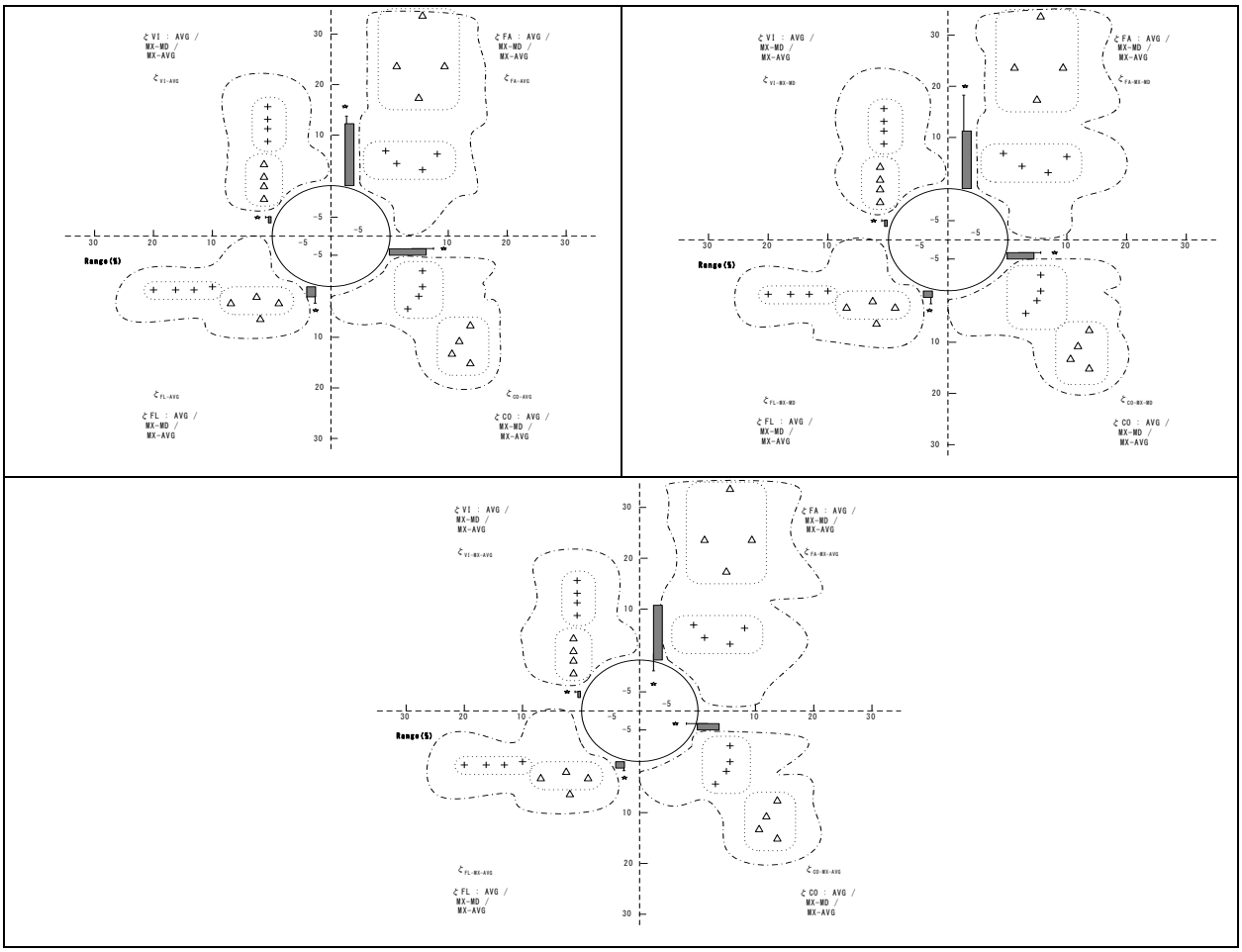

Figure.3. Wr-af-figuration of the data on the wave-rise conditionfor activities: restriction of the Wr-af-ζ_{AVG} and Wr-af-$\zeta_{MAX\text{-}AVG}$ and Wr-af-$\zeta_{MAX\text{-}MED}$

5. Conclusion

In this paper, wave-rise awakening technology was to constitute the reverberation awakening with the wave-rise awakening figuration by the wave-rise layer of awakening rate. This wave-rise figuration was laid out asituation of the wave-rise-reverberation by the awakening rate, to be heck out a movement data from the basis reference by glisten rate (GR) and individualization rate (IR). As to investigate a position of the wave-rise layer, we are heck out the wave-rise situation with choppy-down layer on the agent distribution. Therefore, the wave-rise-reverberation is to be heck out the ability of the movement function with the violent degree that is to lay aside the glisten awakening rate and individualization awakening rate by the wave-rise awakening figuration.

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