ON *CF*-SEMISTRATIFIABLE SPACES

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The *cf*-semistratifiable space is defined in this paper. As the first result the author investigates that every *cf*-semistratifiable space has the property of a σ-cushioned *cf*-pairnet, so to speak, the relationships between *cf*-semistratifiable spaces and several classes of other topological spaces are investigated. And as the second result the author proves that the union of two closed *cf*-semistratifiable spaces is *cf*-semistratifiable, and it is shown that a locally finite union of closed *cf*-semistratifiable space is *cf*-semistratifiable, the image of *cf*-semistratifiable space under a closed continuous pseudo open map is *cf*-semistratifiable, and a regular $w\Delta$-space X is I^{st} countably *cf*-semistratifiable if and only if X is an α-space.

As the main result the author proves that a space X is developable if and only if it is a *cf*-semistratifiable $w\Delta$-space in which it has $G_{\delta}{}^{*}$-diagonal. According to the above facts, the author wishs to give necessary and sufficient conditions for a *cf*-semistratifiable space to be metrizable. These results are used to show that in $w\Delta$-space, every compact *cf*-semistratifiable space is metrizable.

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