

Maritz, P.**Open and image-open multifunctions.** (English) [Zbl 0719.54025](#)
Glas. Mat., III. Ser. 24(44), No. 2-3, 361-380 (1989).

The author investigates thoroughly properties of openness of multifunctions, especially image-open multifunctions (a multifunction $F : X \rightarrow Y$ is image-P if $F(x)$ has property P for every $x \in X$). Interesting theorems on constant semi-continuous and quasi-continuous multifunctions and their graphs are established. Several properties on non-mingled multifunctions (a multifunction F is said to be image-non-mingled if $F(x_1) \cap F(x_2) \neq \emptyset$ implies $F(x_1) = F(x_2)$) are proved. Theorems of *Ponomarev*, *Stanojević*, *Munich*, *Száz*, *Ceder* and *Levi* are improved. Also a large number of counterexamples is provided.

Reviewer: [G.Di Maio \(Napoli\)](#)**MSC:**

- [54C60](#) Set-valued maps in general topology
- [54C10](#) Special maps on topological spaces (open, closed, perfect, etc.)
- [54C08](#) Weak and generalized continuity
- [54C65](#) Selections in general topology

Keywords:[image-non-mingled multifunctions](#); [quasi-continuous multifunctions](#)