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**Weakly  $\alpha$ -continuous functions.** (English) [Zbl 0638.54012](#)  
[Int. J. Math. Math. Sci. 10, 483-490 \(1987\)](#).

A subset  $S$  of a topological space  $(X, \tau)$  is said to be  $\alpha$ -open if  $S \subset \text{IntCl}(\text{Int}S)$ . The family of  $\alpha$ -open sets of  $(X, \tau)$  is denoted  $\tau^\alpha$  and is a topology for  $X$ .

The author introduces a new class of functions called weakly  $\alpha$ -continuous. A function  $f : (X, \tau) \rightarrow (Y, \sigma)$  is said to be weakly  $\alpha$ -continuous if for each  $x \in X$  and each  $V \in \sigma$  containing  $f(x)$ , there exists  $U \in \tau$  containing  $x$  such that  $f(U) \subset \text{Cl}V$ . The author proved that weakly  $\alpha$ -continuous surjections preserve connected spaces and that weakly  $\alpha$ -continuous functions into regular spaces are continuous.

In the last section of the paper the author investigates the interrelation among weak  $\alpha$ -continuity, almost continuity [*T. Husain*, *Pr. Mat.* 10, 1-7 (1966; [Zbl 0138.146](#))], semicontinuity [*N. Levine*, *Am. Math. Mon.* 70, 36-41 (1963; [Zbl 0113.163](#))], weak quasi-continuity [*V. Popa* and *C. Stan*, *Stud. Cerc. Mat.* 25, 41-43 (1973; [Zbl 0255.54008](#))] and almost weak continuity [*D. S. Janković*, *Int. J. Math. Math. Sci.* 8, 615-619 (1985; [Zbl 0577.54012](#))].

Reviewer: [V.Popa](#)

**MSC:**

[54C08](#) Weak and generalized continuity  
[54C10](#) Special maps on topological spaces (open, closed, perfect, etc.)

Cited in **8** Reviews  
Cited in **11** Documents

**Keywords:**

[regular spaces](#); [weak  \$\alpha\$ -continuity](#); [almost continuity](#); [weak quasi-continuity](#); [almost weak continuity](#)

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