Products of hypergroupoids associated to binary relations

S. Breaţ, C. Pelea and I. Purdea

**ABSTRACT.** We study closure properties with respect to products for hypergroupoids, semihypergroups and hypergroups associated to binary relations. Using some basic category theory tools, from a certain point, the investigation turns into studying closure properties with respect to direct products for some classes of monounary multialgebras.

**Acknowledgement.** The second author was supported by the research grant CEEX-ET 19/2005.

**References**


“**Babeş-Bolyai** University

Faculty of MATHEMATICS and COMPUTER SCIENCE

MIHAIL KOGĂLNICEANU 1, 400084 CLUJ-NAPOCA, ROMANIA

E-mail address: bodo@math.ubbcluj.ro
E-mail address: cpelea@math.ubbcluj.ro
E-mail address: purdea@math.ubbcluj.ro

Received: 27.10.2008; In revised form: 24.02.2009; Accepted: 30.03.2009

2000 Mathematics Subject Classification. 20N99, 20N20.

Key words and phrases. Hypergroupoid associated to a binary relation, hypergroupoid associated to a monounary multialgebra, direct product.