

M. Haveshki · A. Borumand Saeid · E. Eslami

## Some types of filters in $BL$ algebras

Published online: 31 May 2006  
© Springer-Verlag 2006

**Soft Computing – A Fusion of Foundations, Methodologies and Applications (2005) 10(8): 657–664**

Unfortunately, the address of M. Haveshki and E. Eslami is wrong. The correct address is given below:

Department of Mathematics of Shahid Bahonar University of Kerman, Kerman, Iran

Furthermore, the tables of Example 3.22. were incorrectly positioned. Here you can see the correct position:

**Corollary 3.21** *Suppose that  $F$  is a maximal and (positive) implicative filter, then  $A/F$  is a Boolean algebra.*

*Proof* By Proposition 3.19,  $F$  is a Boolean filter and by Theorem 2.13,  $A/F$  is a Boolean algebra.  $\square$

*Example 3.22* [5] Let  $B = \{0, a, b, c, 1\}$ . Define  $*$  and  $\rightarrow$  as follows:

$*$	1	0	$a$	$b$	$c$	$\rightarrow$	1	0	$a$	$b$	$c$
1	1	0	$a$	$b$	$c$	1	1	0	$a$	$b$	$c$
0	0	0	0	0	0	0	1	1	1	1	1
$a$	$a$	0	$a$	$a$	$a$	$a$	1	0	1	1	1
$b$	$b$	0	$a$	$b$	$a$	$b$	1	0	$c$	1	$c$
$c$	$c$	0	$a$	$a$	$c$	$c$	1	0	$b$	$b$	1

The online version of the original article can be found at <http://dx.doi.org/10.1007/s00500-005-0534-4>

M. Haveshki · E. Eslami  
Department of Mathematics of Shahid Bahonar University of Kerman,  
Kerman, Iran  
E-mail: eeslami@mail.uk.ac.ir

A. B. Saeid (✉)  
Department of Mathematics, Islamic Azad University,  
Kerman, Iran  
E-mail: arsham@iauk.ac.ir

Easily we can check that  $(B, \wedge, \vee, *, \rightarrow, 0, 1)$  is a  $BL$  algebra. Consider the filter  $F = \{b, 1\}$ . Then  $F$  is an implicative filter while it is not a Boolean filter, because  $a \vee a^- = a \vee 0 = a \notin F$ .

*Remark* In Example 3.22  $(B, \wedge, \vee, *, \rightarrow, 0, 1)$  is a Gödel algebra.