

Year: 2019

Vol.: 94

Fasc.: 3-4

**Title:** On the additive and multiplicative structures of the exceptional units in finite commutative rings

**Author(s):** Su Hu and Min Sha

Let  $R$  be a commutative ring with identity. A unit  $u$  of  $R$  is called exceptional if  $1-u$  is also a unit. When  $R$  is a finite commutative ring, we determine the additive and multiplicative structures of its exceptional units; and then as an application we find a necessary and sufficient condition under which  $R$  is generated by its exceptional units.

**Address:**

Su Hu  
Department of Mathematics  
South China University  
of Technology  
Guangzhou 510640  
China

**Address:**

Min Sha  
Department of Computing  
Macquarie University  
Sydney, NSW 2109  
Australia