

On some ideals of $\mathcal{R}L$

MACK MATLABYANA*

University of Limpopo, Department of Mathematics and Applied Mathematics
P/BagX1106, Sovenga, 0727, South Africa
`marck.matlabyana@ul.ac.za`

In this talk we present some few characterisations of r -ideals and z_r -ideals of the ring of real-valued continuous functions on a frame L , $\mathcal{R}L$. The name z_r -ideal is an ideal which is both a z -ideal and an r -ideal. We show that a frame L is cozero complemented if and only if every r -ideal is a z -ideal. The sum of two z_r -ideals is not necessarily a z_r -ideal. We show that the sum of two z_r -ideals of $\mathcal{R}L$ is a z_r -ideal or all of $\mathcal{R}L$ if and only if L is a quasi F -frame.

References

- [1] F. Azarpanah, R. Mohamadian and P. Monjezi, *On z_r -ideals of $C(X)$* , Quaestiones Mathematicae, 45:6, (2022), 859-873.
- [2] R. Mohamadian, *r -ideals in commutative rings*, Turkish Journal of Mathematics, 39:5, (2015), 733-749.

*This is joint work with Mostafa Abedi and Tedijs Twala.