

5TH IFSCOM2018 ABSTRACT BOOK
ISBN: 978-605-68670-1-9

IFSCOM2018
5TH IFS AND CONTEMPORARY MATHEMATICS CONFERENCE
SEPTEMBER, 05-09, 2018, KAHRAMANMARAS, TURKEY
pp: 24-25

A CHARACTERIZATION FOR GENERIC SEMI-INVARIANT PRODUCT OF SASAKIAN MANIFOLD

HALIL İBRAHİM YOLDAŞ¹, ŞEMSI EKEN MERİÇ¹, AND EROL YAŞAR¹

ABSTRACT

In this paper, we deal with generic semi-invariant product of a Sasakian manifold admitting concurrent vector field. Here, we give a characterization about Ricci soliton in generic semi-invariant product. Also, we show the necessary conditions for a Ricci soliton on the invariant distribution D to be a gradient Ricci soliton.

REFERENCES

- [1] M. Atçeken, S. Uddin, Semi-Invariant Submanifolds of a Normal Almost Paracontact Manifold, *Filomat*, Vol.31,N.15, pp.4875-4887 (2017).
- [2] A. Bejancu, *Geometry of CR-Submanifolds*, Mathematics and Its Applications (East European Series), (1986).
- [3] A. Bejancu, N. Papaghiuc, Semi-Invariant Submanifolds of a Sasakian Space Form, *Colloquium Mathematicum*, Vol.48,N.2, pp.229-240 (1984).
- [4] D. E. Blair, *Contact Manifolds in Riemannian Geometry*, Lecture Notes in Mathematics, Berlin-New York, (1976).
- [5] B.-Y. Chen, S. Deshmukh, Ricci Solitons and Concurrent Vector Fields, *Balkan Journal of Geometry and Its Applications*, Vol.20,N.1, pp.14-25 (2015).
- [6] R. S. Hamilton, Three-Manifolds with Positive Ricci Curvature, *Journal of Differential Geometry*, Vol.17,N.2, pp.255-306 (1982).

2000 *Mathematics Subject Classification*. Primary 53C25; Secondary 53C40.

Key words and phrases. Sasakian manifold, Ricci soliton, Concurrent vector field.

(author one) MERSIN UNIVERSITY, DEPARTMENT OF MATHEMATICS, MERSIN, TURKEY
Current address: Mersin University, Department of Mathematics, Mersin, Turkey
E-mail address, author one: hibrahinyoldas@gmail.com

(author two) MERSIN UNIVERSITY, DEPARTMENT OF MATHEMATICS, MERSIN, TURKEY
E-mail address, author two: sensieken@hotmail.com

(author three) MERSIN UNIVERSITY, DEPARTMENT OF MATHEMATICS, MERSIN, TURKEY
E-mail address, author three: eroly69@gmail.com

LAST CHECK