

BIANCHI V COSMOLOGICAL MODEL WITH STRANGE QUARK MATTER IN $f(R)$ GRAVITY

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In this research, we have studied behaviors of quark matter and strange quark matter which exist in $f(R)$ gravity in presence of Bianchi type universe. In order to obtain a deterministic solution, we have considered the scale factor which is a combination of two factors: the one is the usual power law expansion and the second one is an exponential function. Effect of the curvature function $f(R)$ is also observed on dynamical parameters. Finally we discussed our physical solutions.

Keywords: $f(R)$ Gravity; Quark matter; Strange quark matter; Bianchi V space time

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1. INTRODUCTION

In this research, we have studied behaviors of quark matter and strange quark matter which exist in $f(R)$ gravity in presence of Bianchi type universe. In order to obtain a deterministic solution, we have considered the scale factor which is a combination of two factors: the one is the usual power law expansion and the second one is an exponential function. ...

2. THE FORMALISM OF $F(R)$ THEORY OF GRAVITY

In this research, we have studied behaviors of quark matter and strange quark matter which exist in $f(R)$ gravity in presence of Bianchi type universe. In order to obtain a deterministic solution, we have considered the scale factor which is a combination of two factors: the one is the usual power law expansion and the second one is an exponential function. ...

3. SOLUTIONS OF QUARK MATTER IN $f(R)$ GRAVITY

In this research, we have studied behaviors of quark matter and strange quark matter which exist in $f(R)$ gravity in presence of Bianchi type universe. In order to obtain a deterministic solution, we have considered the scale factor which is a combination of two factors: the one is the usual power law expansion and the second one is an exponential function. ...

4. DISCUSSION AND CONCLUSION

In this research, we have studied behaviors of quark matter and strange quark matter which exist in $f(R)$ gravity in presence of Bianchi type universe. In order to obtain a deterministic solution, we have considered the scale factor which is a combination of two factors: the one is the usual power law expansion and the second one is an exponential function. ...

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