

On explicit realization of logarithmic modules for certain vertex algebras

(Talk)

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(joint work with Antun Milas, University at Albany, USA)

We review our recent results on the representation theory of triplet \mathcal{W} -algebras associated to minimal models for the Virasoro algebra. We discuss the existence and construction of logarithmic modules for these vertex algebras following approach from our papers *Selecta Mathematica*, New Series 15 (2009); *Advances in Mathematics* 227 (2011). A related realization of certain logarithmic modules for admissible affine vertex operator algebras will be also presented.

MSC2010: 17B69; 17B68.

Keywords: vertex algebras, \mathcal{W} -algebras, representation theory, logarithmic conformal field theory.

Section: 2, 7.