Reflection numbers under large continuum

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Abstract: We consider the reflection numbers connected with the Rado conjecture and the Galvin conjecture. We show that the reflection number of Rado conjecture can be the continuum while the continuum is very large. We sill do not know the status of the reflection number of Galvin conjecture under large continuum but we show that a variant of the reflection number can be the continuum. The reflection number of Rado conjecture can be strictly less than the continuum while it is always strictly larger than the cardinal invariant of Martin's axiom. The latter fact can be used to separate the reflection numbers for Rado conjecture and the reflection number of freeness of algebras.