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# Searching for calorons and dyons in $SU(3)$ gluodynamics near to the transition and in deconfinement with the help of near-zero overlap modes

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The topological structure of  $SU(3)$  gluodynamics close to the infrared scale is studied near to the transition temperature with the help of zero and near-zero modes of the overlap Dirac operator. The associated UV filtered topological charge density is considered for antiperiodic and two other thermal boundary conditions. In this way three types of localized topological clusters can be identified as dyons with a characteristic pattern of the local Polyakov loops. We can classify them either as constituents of (anti)calorons of van Baal type or as constituents of (anti)dyon pairs or as isolated (anti)dyons. Deeper in the deconfinement phase we complete the analysis of the topological structure by confronting it with the thermal monopoles visible in the Maximal Abelian gauge.

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