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*The subconstituent algebra of a Latin square.*

We describe the subconstituent algebra  $\mathcal{T}(p)$  of the Bose-Mesner algebra of a Latin square with respect to any base point  $p$ . We show that  $\mathcal{T}(p)$  is isomorphic as an abstract algebra to  $\mathbb{M}_5 \oplus \mathbb{M}_6^{n-2} \oplus \mathbb{M}_1^{n^2-6n+7}$ , where  $\mathbb{M}_k$  denotes the complex algebra of  $k \times k$  complex matrices and the exponents give the multiplicity of each summand.

We describe the action on each irreducible  $\mathcal{T}(p)$  module in terms of a simple structure of the Latin square. (Received September 20, 2007)