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# ONE MODEL TO RULE THEM ALL: THE WESS–ZUMINO–WITTEN–GAWĘDZKI MODEL

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**ABSTRACT.** The two-dimensional non-linear sigma model will be introduced – after Witten, Knizhnik, Zamolodchikov and Gawędzki – whose target is a simple compact 1-connected Lie group with the Cartan–Killing metric and the basic gerbe over it. Special emphasis will be laid on the cohomological structure of the topological term in the action functional and on the Kač–Moody symmetry of the theory. The latter will be seen to constrain the spectrum of the quantised theory, whereas the former will give rise to a fully successful geometric quantisation scheme.

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*Key words and phrases.* Bosonisation; Sigma models; Conformal field theory; Current algebras; Gerbes; Geometric quantisation.