

**Title:** A Resource for Signs and Feynman Diagrams of the standard Model

**Author(s):** Romão, Jorge C.<sup>1,2</sup>; Silva, João P.<sup>3,2</sup>

**Source:** International Journal of Modern Physics A

**Volume:** 27 **Issue:** 26 **Article Number:** 1230025 **DOI:** 10.1142/S0217751X12300256

**Published:** Oct 20 2012

**Document Type:** Review

**Language:** English

**Abstract:** When performing a full calculation within the standard model (SM) or its extensions, it is crucial that one utilizes a consistent set of signs for the gauge couplings and gauge fields. Unfortunately, the literature is plagued with differing signs and notations. We present all SM Feynman rules, including ghosts, in a convention-independent notation, and we table the conventions in close to 40 books and reviews.

**Author Keywords:** Standard Model; Feynman Diagrams; Electroweak Unification

**KeyWords Plus:** Electroweak Symmetry-Breaking; Renormalization; Anatomy; Gauge

**Reprint Address:** Romão, JC (reprint author), Univ Tecn Lisboa, Inst Super Tecn, Dept Fis, P-1049001 Lisbon, Portugal.

**Addresses:**

1. Univ Tecn Lisboa, Inst Super Tecn, Dept Fis, P-1049001 Lisbon, Portugal
2. Univ Tecn Lisboa, Inst Super Tecn, CFTP, P-1049001 Lisbon, Portugal
3. Inst Super Engrn Lisboa, P-1959007 Lisbon, Portugal

**E-mail Address:** jorge.romao@ist.utl.pt; jpsilva@cftp.ist.utl.pt

**Funding:**

Funding Agency	Grant Number
FCT	CERN/FP/116328/2010
	PTDC/FIS/098188/2008
	U777-Plurianual
EU RTN project Marie Curie	PITN-GA-2009-237920

	PTDC/FIS/102120/2008
--	----------------------

**Publisher:** World Scientific Publ

**Publisher Address:** 5 TOH TUCK LINK, Singapore 596224, Singapore

**ISSN:** 0217-751X

**Citation:** Romão J C, Silva J P. A Resource for Signs and Feynman Diagrams of the standard Model. International Journal of Modern Physics A. 2012; 26 (27).