`yacoub`: a Library for Generalized Fading Systems in Python

José V. de M. Cardoso, Paulo R. Lins Jr, Wamberto J. L. Queiroz, and Marcelo S. Alencar, *IEEE Senior Member*
Universidade Federal de Campina Grande
Campina Grande, Paraíba, Brazil
{josevinicius,paulo,wamberto,malencar}@iecom.org.br

Abstract—We present a well tested Python-based library for simulating and computing generalized fading systems, named `yacoub`. We describe the applicability of `yacoub` using examples of recent communication systems problems, namely: cooperative spectrum sensing, bit error rate computation in generalized fading, and free space optics. The development of `yacoub` is done in the open at `http://github.com/mirca/yacoub`.

I. INTRODUCTION

II. THE ACCEPTANCE-REJECTION SAMPLER IN LOG-SPACE

III. EXAMPLES

A. Signal detection

B. Free Space Optics

C. BER in $\alpha - \mu$ Fading

IV. CONCLUSIONS

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