

Re: are these stability conditions the same?

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From: Randy Yates (randy.yates_at_sonyericsson.com)

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Randy Yates <yates@ieee.org> writes:

> [...]

> *Essentially, this is a sufficient condition for convergence but not*

> *a necessary one.*

This is wrong.

GIVEN that a transfer function has the form of a rational function, the ROC conditions are NECESSARY AND SUFFICIENT.

The apparent discrepancy you (Kiki) reveal is that one test is for rational functions while the other is for any impulse response, whether it is from a rational transfer function or not. See Oppenheim and Willsky's "Signals and Systems," for example.

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