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**Zoran Sunic\*** ([zoran.sunic@hofstra.edu](mailto:zoran.sunic@hofstra.edu)). *Branch groups with (non-)trivial rigid kernel*. Preliminary report.

We provide a simple criterion for a self-similar, regular branch group to have a trivial rigid kernel. Namely, a self-similar, regular branch group has a trivial rigid kernel if and only if its closure is finitely constrained and a certain index related to the group coincides with the corresponding index for the closure. The criterion easily applies to the Hanoi Towers group (on 3 pegs) to confirm the known fact (Bartholdi-Siegenthaler-Zaleskii) that this group has nontrivial rigid kernel. An infinite family of groups is provided to which the criterion also applies and which provides new examples of regular branch groups with nontrivial rigid kernel (there is already such a family, constructed by Skipper). The groups in the family share many properties with the Hanoi Towers group. (Received September 17, 2019)