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Impacts analysis of car following models considering variable vehicular gap policies

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Highlight

1. Two new car following models considering variable vehicular gap policies were constructed.
2. An improved linear stability analysis and an improved reductive perturbation method were employed to explore the impacts of two variable vehicular gap policies to car following behaviors.
3. Both CTH policy and VTH policy with proper parameters can improve the stability and the performance of the traffic flow at car following, approaching and hard braking situations.

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