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Abstract for an Invited Paper
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Theoretical Approach to Many-body Instabilities in Bilayer Graphene[1]

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I will review current theoretical approach to electron-electron interaction driven many-body instabilities in bilayer graphene at the neutrality point. The role of competing interactions and the dependence of different ordering tendencies on the range of the interaction will be examined. In particular, I will argue that within the renormalization group approach, for longer range interaction giving predominantly forward scattering, the leading ordering tendency is towards a gapless electronic nematic state. For shorter range interactions giving additional back scattering comparable to the forward scattering, the leading ordering tendency is towards a gapped Neel antiferromagnet. These results will be discussed in the context of recent experiments reporting signatures of broken symmetry states in suspended bilayer graphene.

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