

On WKB problems and harmonic maps to buildings

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We formulate the Riemann-Hilbert and Hitchin WKB problems, and explain how local estimations, recently proven by Mochizuki in the Hitchin case, lead to harmonic mappings to euclidean buildings. Our project is then to construct versal harmonic mappings corresponding to a given spectral curve of the Higgs field. We have a sketch of program for the case of SL_3 , where spectral networks play a key role. This is joint work with Katzarkov, Noll and Pandit.