Weil-Petersson geometry of Teichmuller-Coxeter complex

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We introduce a space, which we name Teichmuller-Coxeter complex, which is a Coxeter complex whose fundamental domain is the Weil-Petersson (metrically) completed Teichmuller space of a higher genus surfaces. The new space is characterized as being geodesically complete, and has some features common with the symmetric spaces of semi-simple type, including the finite rank (FR) property due to Korevaar-Schoen.