Closed meromorphic 1-forms

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I will present and explain some classical results from foliation theory using André Weil's residue theorem for closed meromorphic 1-forms as a starting point. This viewpoint provides tools to investigate the algebraicity of separatrices in a semi-global setting (neighborhood of a compact curve contained in the singular set of the foliation) as well as the geometry of the complement of smooth hypersurfaces on projective manifolds.