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Selberg's zeta functions and surfaces of finite geometry. (Fonctions zêta de Selberg et surfaces de géométrie finie.) (French) Zbl 0794.58044

Kurokawa, N. (ed.) et al., Zeta functions in geometry. Tokyo: Kinokuniya Company Ltd.. Adv. Stud. Pure Math. 21, 33-70 (1992).

Summary: Let M be a Riemann surface of constant curvature -1, finite geometry and totally geodesic compact boundary. With a similar definition to the Selberg's zeta function associated to a Riemann surface of finite area, the zeta function Z_M is expressed through spectral invariants (eigenvalues and resonances) and extends so to a meromorphic function on the entire complex plane. Linked to trace formulas of Selberg's and Birman-Krejn's type, the proof is based on the meromorphic extensions of the resolvent of various Laplacians and the following (stationary and non-stationary) scattering theory.

For the entire collection see [Zbl 0771.00036].

MSC:

58J50 Spectral problems; spectral geometry; scattering theory on manifolds
11F72 Spectral theory; trace formulas (e.g., that of Selberg)

Cited in **15** Documents

Keywords:

hyperbolic Riemann surface; Selberg's zeta function; spectral invariants; meromorphic extensions

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