1106-01-1140   **Shigeru Masuda*** (`hj9s-msd@asahi-net.or.jp`), 2-18-5, Tama-Cho, Fuchu, Tokyo 183-0002, Japan. *La value particulière and the eigenvalue.*

We discuss the coincidence between la valeur particulière (the particular value) and the eigenvalue. The eigenvalue problem is the model of the Schrödinger equations or the quantum equations, namely, the Sturm-Liouville type boundary value problem of heat diffusion is the model of the Schrödinger equations. Sturm and Liouville discuss la valeur particulière, without its corresponding la function particulière / le espace particulière. The nomenclature of eigenvalue and eigenfunction / eigenspace are introduced by Hilbert in 1904. This handlings of la valeuer particulière are traditionally relates to the studies of trigonometric series, secular equations, or the linear partial differential equations, by such as Lagrange, Laplace, Fourier, Poisson, Cauchy. Above all, Cauchy 1823 introduces le espace particulière (the eigenspace) of the fluid motion. Sturm-Liouville follow the proving on trigonometric convergence by Fourier and Poisson and describe the boundary value differential equation of linear second order on the heat diffusion problem from Poisson 1835, which handles previously the eigenvalue problem. Courant-Hilbert contribute the mathematical theory on the eigenvalue problem of the Strum-Liouville type to Schrödinger. (Received September 15, 2014)