# What is the “Degenerate”?

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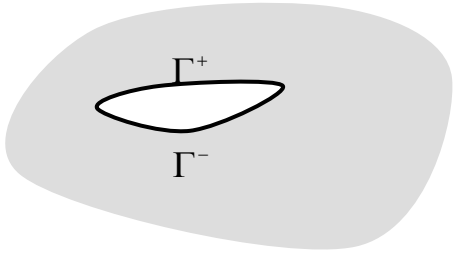
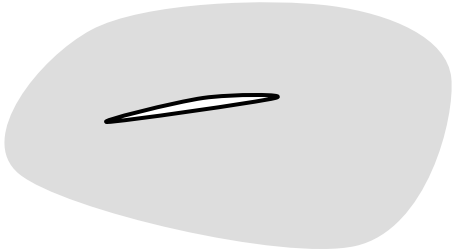
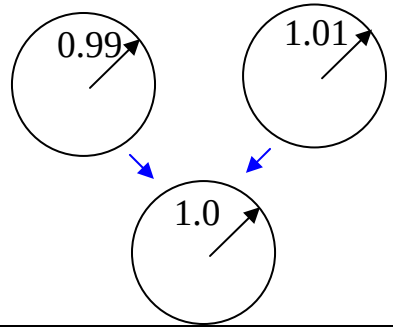
|---|---|---|
| Degenerate eigenvalues | Two different eigenvalues<br>$(\lambda_1 \neq \lambda_2)$ | The same $\lambda_1 \to \lambda_2$<br>$(\lambda_1 = \lambda_2)$ |
| Degenerate boundary | Two different boundaries<br>  | The same<br>$(\Gamma^+ \to \Gamma^-)$<br>  |
| Degenerate scale | Scale $a_n$<br>(normal) | Critical scale $a_n \to a_c$<br>  |
| Degenerate kernel<br>(separable $U(s,x) = \sum a_i(x) b_i(s)$ ) | Galerkin method<br>(Double integrals)<br>$\iint U(s,x) dB(s) dB(x)$ | (Single integral)<br>$\int_B a(s) dB(s) \int_B b(x) dB(x)$ |

【file:Degeneratedef.doc by Henry June 17,2005】