Proposal for calculating the temperature curves inside the Earth in finite segments.

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The adopted geometry is conical. For each segment of curve, we consider, in the conic volume, two limiting spheric surfaces of radii R_1 and R_2 measured from the earth's center.

If, between R_1 and R_2, the energy generation is nonexistent, the heat-flow per unit of surface varies as $1/R^2$. After integration, a hyperbola of the form: (T-constant)*r=Constant is obtained, assuming the conductivity K ($W.m^{-1}.{}^{o}C^{-1}$) is constant between R_1 and R_2.

If, on the contrary, there is a heat generation per unit of volume A ($W.m^{-3}$) in that interval, the algebraic expression of T(r) has two terms. One corresponds to the previous case. The other term is affected by the quotient A/K, which is also considered as constant in that interval. Thus, follows that, in the form of the curve T(r), K has the the same influence as the inverse of A. It is as if the production of an A*factor heat didn't have any influence provided it could be evacuated with a K*factor conductivity.

Some curves have been drawn. They verify the constraints of data and margins assumed today. The results indicate a higher termic transmisibility but a lower temperature under the oceans than under the continents.