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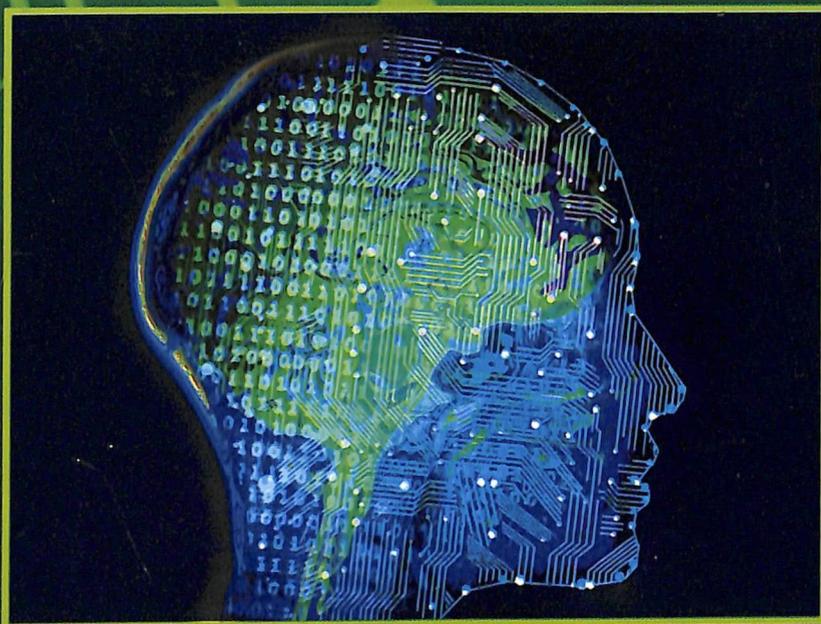
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Machine Learning in Chemical Dynamics ❖ Conformal Mapping ❖
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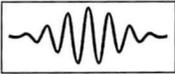
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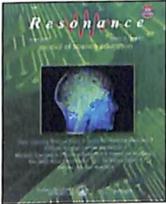
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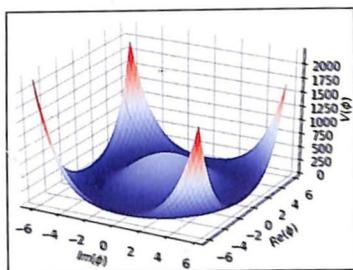
The goal of artificial intelligence (AI) is to understand human intelligence and reproduce it in a machine. Machine learning (ML) is a subarea of AI that builds systems that learn how to perform complex tasks by analysing large volumes of training data. Currently, the most successful ML models are deep neural networks whose architecture is inspired by the way our neurons are wired.



Herbert A Simon (1916–2001)
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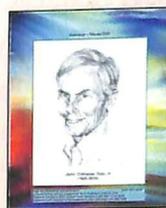


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The cover image features the painting on an easter egg made by Alexander Grothendieck. The GRR theorem and Tate isogeny theorem are stated on the egg. Grothendieck gifted it to Tate on the easter day of 1964.

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John Torrence Tate Jr.
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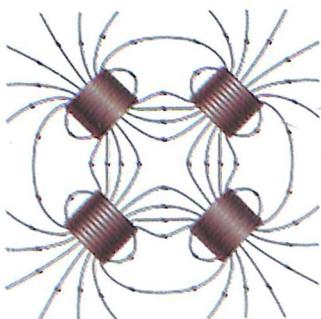


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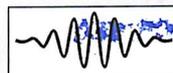
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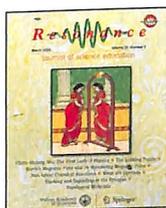
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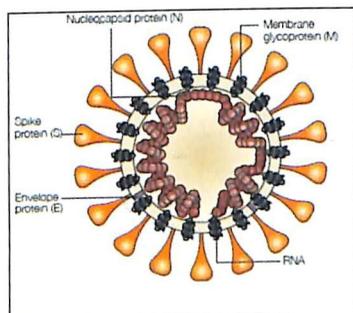
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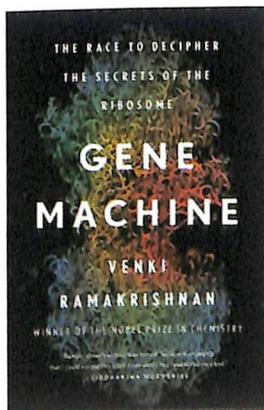
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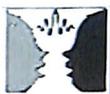
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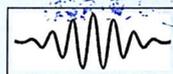


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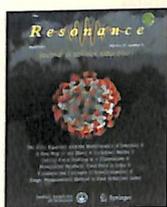
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An artist's view of the Corona virus.

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George Robert Price
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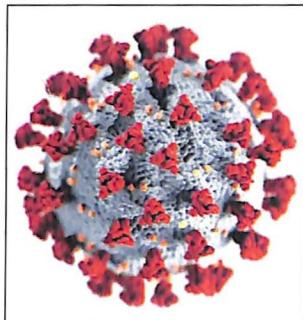
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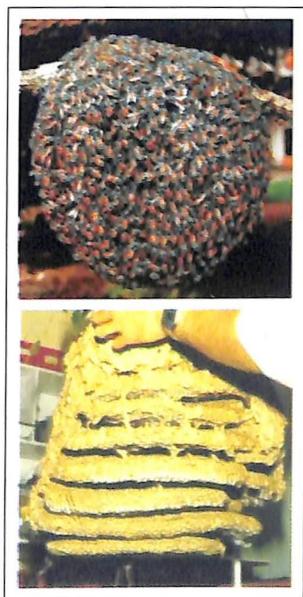
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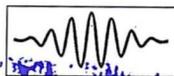
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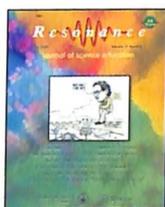
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Anderson's varied contributions to Science
– in the eyes of a colleague in 1983
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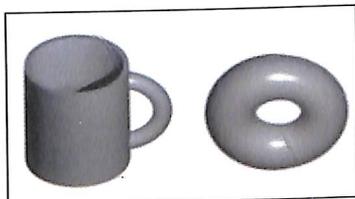
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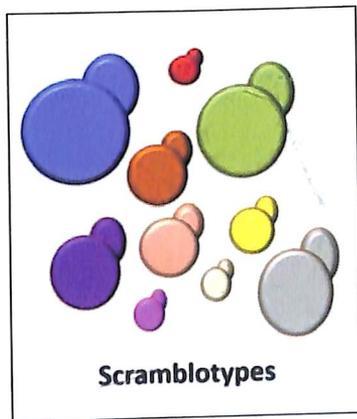
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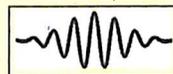


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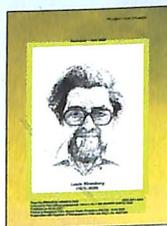
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The red-eyed tree frog *Agalychnis callidryas*.
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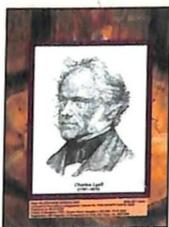
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Cartoon (1830) lithographed by Henry De La Beche showing a Professor Ichthyosaurus lecturing on a human skull to a group of Jurassic reptiles. The cartoon was made as a critique of Lyell's idea of a cyclic pattern of the Earth's history.

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Sir Charles Lyell

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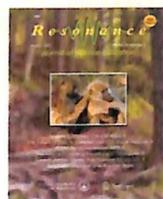
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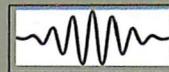
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Dorothy Leavitt Cheney
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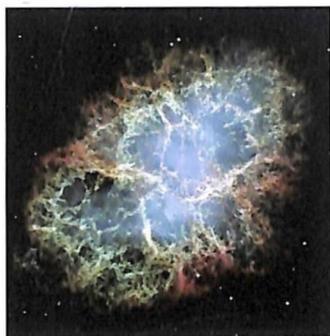
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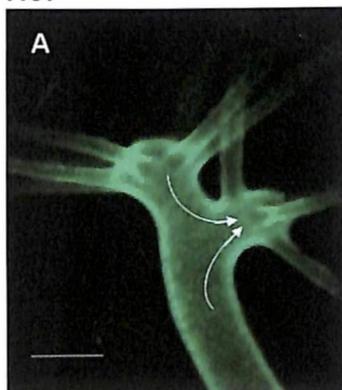
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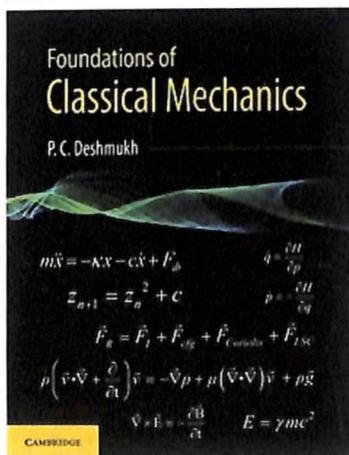
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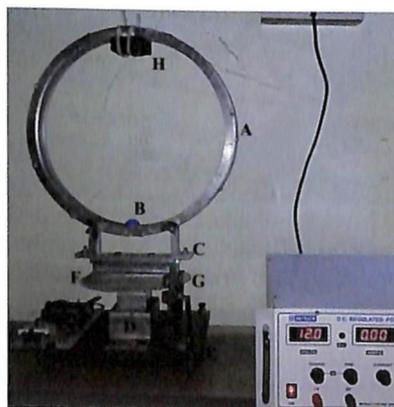
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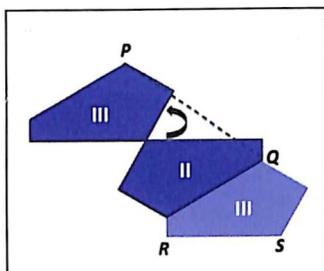


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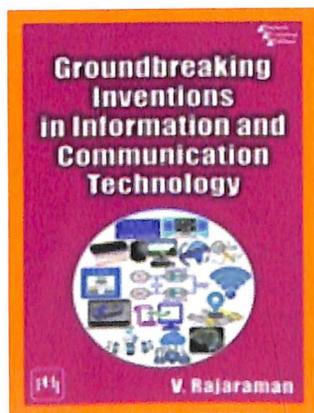
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Brood Parasitism: Three reed warbler eggs and one cuckoo egg (slightly larger) in a reed warbler nest and a 14-day old cuckoo chick in a reed warbler nest.
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Freeman John Dyson
(1923–2020)
Illustration: Subhankar Biswas

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Heat Capacity Calculations ❖

Understanding Katydid Communication ❖

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Luminescent Paint for Air Pressure Sensing ❖

A Proof Without Words ❖

Optical Telescopes at Devasthal Observatory ❖

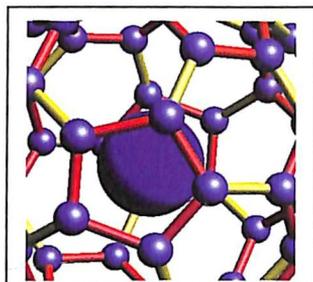
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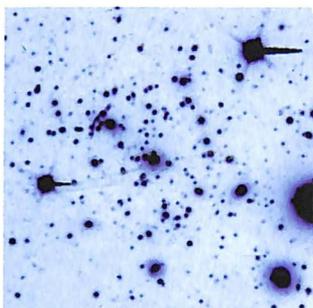


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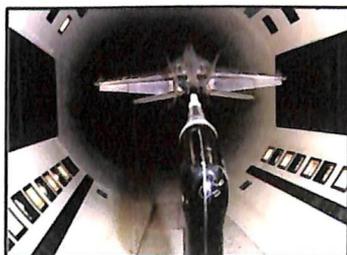


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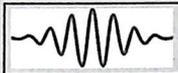
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DDT insecticide spraying as part of the western spruce budworm control project in Oregon, 1955.
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Rachel Carson
(1907–1964)
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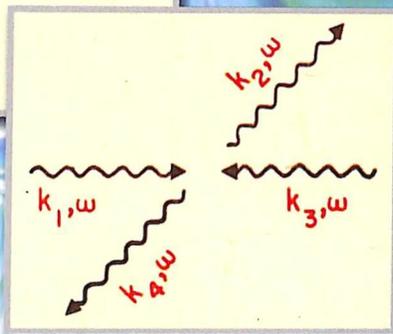
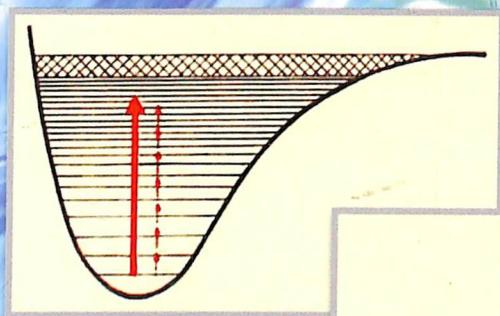
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Nicolaas Bloembergen ❖ Nobel Prize 2020 ❖
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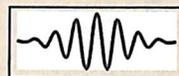
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Birds in the backyard
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Graphic illustration of nonlinear optics, reproduced from the cover page of the *Collected Works of Nicolaas Bloembergen*, published by the Indian Academy of Sciences, Bengaluru.

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Nicolaas Bloembergen
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