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COVERAGE
Accumulation of algal biomass under thinning Arctic sea ice (image diameter ~25 meters). This photograph was taken on 17 September 2012 in the central Arctic basin at 85°30′47″N, 59°54′11″E, from the bridge of the research vessel Polarstern. Here, the central ice floe is surrounded by a green cloud of sub-ice diatoms. Current trends in sea-ice thinning may influence algal growth in this region. See page 1430.

Photo: Stefan Hendricks, Alfred Wegener Institute, Expedition IceArc (ARK27-3)
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1399 Detection of Carbon Monoxide and Water Absorption Lines in an Exoplanet Atmosphere
Q. M. Konopacky et al.
A high-resolution spectrum of an exoplanet reveals molecular lines that provide clues about the planet’s formation.

1402 Suppression of Metal-Insulator Transition in $\text{V}_2\text{O}_3$ by Electric Field–Induced Oxygen Vacancy Formation
J. Jeong et al.
Electrochemistry plays a role in the ionic liquid gating of a strongly correlated oxide.

1405 Photonic Spin Hall Effect at Metasurfaces
X. Yin et al.
The polarization-dependent deflection of photons can be controlled with a designed metamaterial surface.

1408 A Terradynamics of Legged Locomotion on Granular Media
C. Li et al.
A model is developed to predict terrestrial animal locomotion on granular materials, where the terrain moves when stressed.

1412 DNA Gridiron Nanostructures Based on Four-Arm Junctions
D. Han et al.
Flexible DNA wireframe nanostructures have double-helical domains as edges and modified Holliday junctions as vertices.

1416 Simple Scaling of Catastrophic Landslide Dynamics
G. Ekström and C. P. Stark
Inverse modeling of seismic data reveals forces associated with catastrophic landslides.

1419 Two Modes of Change in Southern Ocean Productivity Over the Past Million Years
S. L. Jaccard et al.
Subantarctic iron fertilization and Antarctic stratification explain the past 10 cycles’ glacial-interglacial carbon dioxide variation.

1423 Emergence and Diversification of Fly Pigmentation Through Evolution of a Gene Regulatory Module
L. Arnoult et al.
Pigmentation spots on the wings of flies originate from changes at different levels of the underlying genetic hierarchy.

1426 Structural Reorganization of the Toll-Like Receptor 8 Dimer Induced by Agonistic Ligands
H. Tanji et al.
The crystal structure of unbound and ligand-bound Toll-like receptor 8 reveals ligand-induced conformational changes.

1430 Export of Algal Biomass from the Melting Arctic Sea Ice
A. Boetius et al.
As polar ice retreated in 2012, it left evidence of large algal deposits in its wake.

1433 Geometric Catalysis of Membrane Fission Driven by Flexible Dynamin Rings
A. V. Shnyrava et al.
Guanosine triphosphate hydrolysis limits polymerization of the membrane protein dynamin on lipid nanotubes into short, metastable collars.

1436 RNA Helicase DDX3 Is a Regulatory Subunit of Casein Kinase 1 in Wnt–β-Catenin Signaling
C.-M. Cruciat et al.
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1441 Phosphorylation of Dishevelled by Protein Kinase RIPK4 Regulates Wnt Signaling
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1445 A Localized Wnt Signal Originates Asymmetric Stem Cell Division in Vitro
S. J. Habib et al.
Stem cells orient their cell division apparatus to generate proximal and distal daughters relative to the Wnt source.

1448 Type I Interferon Suppresses Type II Interferon–Triggered Human Anti-Mycobacterial Responses
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Disseminated Mycobacterium leprae infection is associated with blockade of the antimicrobial response by type I interferons.

1453 Dual Origin of the Epithelium of the Mammalian Middle Ear
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